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ABSTRACT

Results of assessing needs in medical education in Florida are presented. Attention is directed to: the type, size, and location of programs needed to meet state needs; funding and tuition policies; access to medical education; public support for private medical schools; financial aid to medical students; geriatric medical education; graduate medical education; health care cost containment and medical education; physician assistant education; and academic advisement for premedical students. An overview of allopathic and osteopathic medical education and practice in the United States addresses: number and location of schools, applicants, enrollment, minority and women enrollment, curricula, and productivity and income of physicians. Information is also provided on the health status of Florida residents, including causes of death for different age groups, effect of income and life style on health status, health status of minorities, and medical needs in rural areas. Also covered are: supply and demand projections, geographic distribution of physicians within Florida, and specialty distribution. Appended are two papers: "Options for Financing--Graduate Medical Education in Florida" (Ruth S. Hanft), and "Report on Graduate Medical Education Financing in Florida" (John M. Kuder). (SW)

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POSTSECONDARY EDUCATION PLANNING COMMISSION

Medical Education in Florida

A Study Prepared in Response to
Appropriation Item 496
of the
1984 General Appropriations Act
(Chapter 84-220, Laws of Florida)

1985 - Report 1

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January 10, 1985

HE 019 413

EXECUTIVE SUMMARY

Health Professions Education Plan

At the request of the 1982 Legislature, the Postsecondary Education Planning Commission developed an outline for a Comprehensive Health Professions Education Plan for the State. It was submitted to the Legislature in March 1983 and recommended that the Postsecondary Education Planning Commission undertake a series of reports in the different health professions education areas. The report on medical education is the fifth in this series following reports on nursing, public health, dentistry and chiropractic education.

In a proviso to Appropriation Item 496, the 1984 Legislature more specifically directed the Postsecondary Education Planning Commission to

> "develop a comprehensive health professional education plan for the state. During the 1983-85 biennium, priority shall be given to determining the needs in the undergraduate and graduate medical and dental education programs. Planning for medical education shall include consideration of medicine and osteopathy. In the area of graduate medical education, the plan shall address a planning and funding process which will optimize the use of state funds to meet needs in specific specialties. The review shall include an analysis of the type and size of programs needed to meet the state's needs, the geographic location of such programs, the funding and tuition policies, and the state's responsibility to provide an opportunity for its residents to participate in these educational programs. The Commission shall provide a report to the Legislature no later than March 1, 1984 on dental education and no later than January 10, 1985 on medical education. These reports will address both immediate and long-range plans to meet the needs of these two programs and a method of maintaining these plans up-to-date."

The report on dental education was submitted to the Florida Legislature on February 29, 1984.

Issues Concerning Medical Education in Florida

The State of Florida has four schools of medicine: two public schools, the University of Florida and the University of South Florida, and two independent schools, the University of Miami School of Medicine and the Southeastern College of Osteopathic Medicine (SECOM).

Review of medical education is occurring throughout the country as medical education enters a new era of decreased federal support and predictions of an oversupply of physicians. The number and size of medical schools expanded dramatically over the last two decades to meet a nationwide physician shortage. Fueled with millions of dollars in federal financial support, the number of schools and overall enrollment increased. In fact, enrollments have doubled since 1966. However, many public policy makers and educators now question the need for such large enrollments.

The 1980 Graduate Medical Education National Advisory Commission (GMENAC) report made recommendations which have significant implications for medical education in Florida. It predicted a surplus of physicians in a large number of specialties by the year 1990. It recommended (1) that medical schools reduce their class size, (2) that no new medical schools be established, (3) that schools required by law to increase class size should be relieved of that requirement, (4) that the number of foreign medical graduates entering the United States be severely restricted, and (5) that support be continued for training programs in family practice, for other specialties in short supply, and for ambulatory care experiences. Fourteen medical schools have reduced their enrollments by five or more students in the last few years, with reduction in federal and state support cited as the reasons.

Other issues that have been raised concerning state policy for medical education include student access, public support for independent schools, tuition and financial aid, and minority participation in medical education.

The report reviews nationwide trends in medical practice and medical education and analyzes the state's needs for medical education. The Commission found that Florida has been very well served by the three medical schools that have been in the State for the last few decades. The schools have made significant contributions to the academic and medical communities in the State and have served as invaluable resources for advanced medical care to the citizenry of Florida.

Postsecondary Education Planning Commission members and staff have met with members of the medical profession and medical educators throughout the State in preparation of this report and express appreciation for their contributions to the Commission's deliberations.

Commission Activities and Procedures

Commission staff began collecting and analyzing information on medical education in Florida in August 1983. A proposed staff outline was submitted to the Commission at the August 1983 meeting. The outline was also shared with the Board of Regents and meetings were held with the deans of the four Florida medical schools at that time.

In August 1984, the Chairman of the Postsecondary Education Planning Commission appointed a committee of three Commission members who had interest in and knowledge of medical education in Florida. Using information compiled by the staff over the last year, the Committee held three meetings in the Fall and submitted their report to the full Commission for its consideration. The report was adopted by the Commission on December 13, 1984 and submitted to the Legislature.

Medical Programs in Florida

Florida has considerably fewer positions in medical schools than other states of comparable size. In fact, when the size of Florida's population is taken into account, Florida ranks 46 out of the 50 states. However, because of the large numbers of physicians who move to Florida every year, the supply of physicians in Florida appears sufficient. Moreover, the most recent supply and demand projections indicate that Florida will be adequately supplied with physicians for the next twenty years. Unless, the rate of in-migration of physicians drops markedly, there should be no expansion in the number of medical schools in Florida or any increase in enrollment levels.

Public Medical Schools

The two public medical schools in Florida, the University of Florida and the University of South Florida, have served the state very well over the last few decades, distinguishing themselves in numerous areas of teaching, research and clinical practice. The recent statutory requirement that the Board of Regents review every program every five years will provide the State with an important opportunity to define more sharply the role and scope of the two state medical schools, to develop and review indicators of quality, and to tie in the findings of the review with the budgetary process.

Independent Medical Schools

The Master Plan for Florida Postsecondary Education underscores the importance of the independent sector in maintaining diversity and choice in postsecondary education in the State. The State of Florida has two independent medical schools both of which receive state funds on a per capita basis. However, the history, maturity, mission and scope of the two schools are very different.

The University of Miami. The University of Miami School of Medicine was established in the 1950's in direct response to a statement of need for a medical school in Florida from the Florida Legislature. The School receives a per capita subsidy from the State for Florida residents. The School plays an important role in the structure of medical education in the state. Approximately one-third of the Florida residents who attend medical school in Florida are enrolled at the University of Miami and the School is located in the most populous part of the State. The constellation of medical services centered around the University of Miami/Jackson Memorial Medical Center serves the southeastern portion of the state with indigent care, special programs, and advanced tertiary care. The Commission recommends the continuation of state per capita support for the University of Miami School of Medicine. However, because of the anticipated surpluses in physicians in the State, the nature and level of support should be reassessed every few years. Furthermore, the School should report annually to the State on issues of concern in statewide planning. To provide more stability in annual budgetary decisions, the state subsidy to the University of Miami should be indexed to support for the public medical schools, the relationship between tuition and state subsidy should be stabilized, and comparable cost data should be developed for the three allopathic medical schools.

Southeastern College of Osteopathic Medicine (SECOM). SECOM, located in North Miami Beach, was chartered in 1979 and granted provisional accreditation. It is the only osteopathic school in the southeastern United States. Florida residents represent approximately 80 percent of the enrolled students. SECOM has received annual appropriations from the State since 1981. The report reviews the difference between osteopathic and allopathic education and practice and identifies certain need that may be met by an osteopathic school. The Commission recommends that the State continue but not increase the current level of support awaiting full accreditation of the School. The Postsecondary Education Planning Commission should be assigned responsibility for recommending state contracts with SECOM in keeping with the Commission's responsibility for recommending contracts with other independent institutions.

Tuition and Student Financial Assistance

Florida public medical school tuition was compared to other southern schools and schools in the ten largest states. Current tuition levels were found to be low compared to other large states and slightly high for a southern state. The cost of education represented by current tuition levels is eight percent of cost, considerably lower than the percentage represented by undergraduate tuition. The Commission recommends that tuition be increased to represent 13 percent of costs which would bring Florida tuition in line with that of other large states and bring the percentage of costs borne by medical students closer to that borne by undergraduates. Recognizing the continuing shortage of physicians among certain rural and urban populations, the Commission recommends the establishment of a service-conditional loan forgiveness program for medical students which would enable them to borrow money for tuition. Upon completion of school, the student would have the option of repaying the loan or agreeing to practice in an underserved area. The report provides information on how such a program should be established and administered.

Minority Participation

Though substantial progress was made in increasing the numbers and percentages of minorities attending medical schools in the late sixties and early seventies, participation remains low for most minority groups, including Hispanics and blacks. The Commission recognizes that the primary way to increase minority participation in medical schools is to improve the performance and preparation of minorities in the earlier stages of education and the report underlines the importance of recommendations from the Commission's 1984 study on minorities in postsecondary education. The report also suggests a number of strategies to assure that adequate information on financial aid is shared with prospective minority medical students and that the current state-level graduate financial aid programs for minorities meet the needs of minority medical students.

Geriatric Medical Education

The ability of physicians to manage the health problems of the aged has been of considerable interest in Florida recently. Older people require significantly more time and resources from the medical profession than do younger people and require physicians with thorough preparation in a wide range of medical fields. All four of the state's medical schools are engaged in teaching and research in geriatric medical care. The report makes recommendations on the need for adequate geriatric clinical experience in medical schools and the role of geriatrics in the curriculum and licensing process.

Graduate Medical Education

Graduate medical education or residency refers to the professional training that medical students receive in hospitals after finishing medical school. The State of Florida currently provides monies for the programs at Shands Hospital, University Hospital in Jacksonville and Tampa General Hospital and funds the Community Hospital Education Program. The report describes the funding practices and makes a number of recommendations to help clarify legislative intent and to help distinguish graduate medical education funding from indigent care funding. The report also recommends that no new funding policies be initiated in Florida until the impact of recent state and federal policy initiatives becomes clearer and that any new programs for funding graduate medical education recognize the role of teaching hospitals not affiliated with public medical schools.

Foreign Medical Graduates

Over the last ten years an increasing number of graduates from foreign medical schools have presented themselves for licensure in Florida. These schools are not accredited and a study undertaken in 1980 by the U.S. General Accounting Office reported that the education offered by some was not comparable to U.S. schools because of deficiencies in admission requirements, facilities and equipment, faculty, or clinical training. The Commission is very concerned about recent reports of substandard educational practices and recognizes the need for careful review and examination of unaccredited medical schools. However, the State should not attempt state-level accreditation of foreign medical schools which is time-consuming and ineffective but should work closely with and offer support to national groups that are collecting data for use by all state licensing boards.

Health Care Cost Containment

The costs of health care are increasing at a considerably greater rate than other costs and it is estimated that physicians control nearly 70 percent of hospital costs. Research has shown that physician cost-containment training can result in lowering medical care costs without reducing quality of care. The report reviews the role of cost containment in the medical schools' curriculum in Florida and the efforts of the Medical Education Council of the Hospital Cost Containment Board in working with the four schools. Recommendations are offered to improve the effectiveness and accountability of these ongoing efforts.

Physician's Assistant Education

Physician's assistants offer a cost-effective option for the delivery of certain medical services. The Commission supports increased use of physician's assistants in appropriate settings. At present, supply is adequate to meet demand and the Commission does not recommend that any new programs be established. However, efforts should be made to expose more practicing physicians to physician's assistants and the State Board of Medical Examiners should review licensing policies to assure the most effective use of physician's assistants training in meeting state needs.

Academic Advisement

The advisement of pre-medical students is of considerable importance for students who seek admission to medical school and for society's goals of achieving equitable access for all students. The report reviews the quality of pre-medical advising in the state's colleges and universities. Most four-year colleges and universities have devoted considerable resources to assuring effective pre-medical advising. However, the community colleges have not traditionally offered many services for pre-medical students. The State Board of Community Colleges should review the appropriate role of pre-medical advising at the community college level. The report also recommends that the four medical schools review their admission policies in light of a recent national report criticizing some schools for overly specific requirements resulting in a distortion of the undergraduate education received by students.

Conclusion

The State of Florida is well positioned in regards to access to and quality of medical education for its citizens. The three medical schools that have served the State over the last few decades have distinguished themselves in training, service and research. The State avoided the overexpansion in medical education experienced by many states and the Commission found no need to recommend enrollment reductions. The geographic distribution of the medical schools follows the population distribution somewhat closely and no major section of the State is without reasonable access. The Commission analyzed the role of the independent sector in providing medical education and while affirming its contribution to the State found need for more regular review of the State's policies and the need to tie state support to changing state policy objectives.

Over the next two decades, significant changes are expected in the medical profession and health care in general. All of these changes may impact the supply of and demand for medical doctors and the role of medical schools in meeting societal needs. The State of Florida will need to continue to assess the medical education needs in the State and evaluate the ability of the present medical education structure to meet the needs.

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In August 1984, the Chairman of the Postsecondary Education Planning Commission appointed a committee of three Commission members who had interest in and knowledge of medical education in Florida. Using information compiled by the staff over the last year, the Committee held three meetings in the Fall and submitted the report to the Commission for adoption.

The Commission distinguishes in its deliberations among the areas of concern appropriate to a postsecondary planning commission and those appropriate to a governing board and professional accrediting bodies. The Commission focused its activities on areas of statewide manpower planning and coordination among public and independent schools while also fulfilling the directives of the proviso language and special requests from members of the State Board of Education. The Commission did not review the curriculum, faculty or research except to ascertain that minimal standards were being met. The Board of Regents will be undertaking a program review of the health professions programs in 1985-86 and the Commission has made recommendations that the Board investigate certain areas appropriate to its role as a governing body. The Commission also acknowledges the role of the Liaison Committee on Medical Education (LCME) and the American Osteopathic Association (AOA), the accrediting agencies for U.S. medical schools designated by the Council on Postsecondary Education, in setting standards for medical school programs.

The Commission undertook the following procedures and activities in its deliberations.

1. The Master Plan was reviewed for general principles relating to advanced graduate and professional education, tuition policy, public support for independent schools, minority participation and the need for coordinated, statewide planning. As appropriate, these principles served as guidelines for the Commission's deliberations.

2. A search was conducted of recent national and state studies that would be of benefit to policy development in Florida.

3. The Commission contracted with the Florida State University Institute for Studies in Higher Education to provide professional services in the research and preparation of this report.

4. The Commission incorporated the findings of two recent physician manpower studies in its report. The Office of Comprehensive Health Planning of the Department of Health and Rehabilitative Services sponsored a STAR grant for physician manpower supply and demand data and projections for the years 1990, 1995, 2000 and 2005. The Florida Academy of Family Physicians contracted for a special study on the need for family practice physicians in Florida.

5. In the area of graduate medical education financing, the Commission contracted with Dr. John Kuder, Director of the Center for Applied Research at the Henry Ford Hospital in Detroit and Dr. Ruth Hanft, Health Education Economist and former Deputy Assistant Secretary at the U.S. Department of Health and Human Services.

6. Staff consulted with the California Postsecondary Education Commission and the University of California Office of the Vice-President for Health Affairs relating to health professions education planning.

7. The American Association of Medical Colleges and the Florida State Board of Independent Colleges and Universities provided the staff with critical and timely information in the areas of foreign medical schools and graduates.

8. The Department of Education Medical Education Office was extremely helpful in providing the staff with information on physician manpower in Florida and residency programs in Florida.

II. MEDICAL EDUCATION IN THE UNITED STATES

Allopathic Medical Education

The most startling and epoch-making force in the history of medical education was a study of medical education conducted by Abraham Flexner. It was published in 1910, and produced a veritable revolution in medical education.

During this period, medical education was plagued by a plethora of low-grade medical schools, low in academic standards and low in even rudimentary scientific equipment. In 1890, there were 160 schools awarding the M.D. degree. In the next decade this number fell to 126. This drop was largely due to publicity given to existing conditions by the Journal of the American Medical Association, which published figures showing how well the graduates of the different schools did on state medical examinations. The A.M.A. then began to make individual visits to each of the medical schools and rated them according to pre-established criteria.

This paved the way for the far more thorough study by Flexner. During his investigation twenty schools closed on the spot rather than have evidence about them exposed to public view. Flexner's final report named each remaining school and described its circumstances in detail. By 1915, the light of public scrutiny had brought the number of medical schools down to 95. This upgrading of medical education to such a high level in so short a period was historic. The Flexner report put medical training out in front of other traditional forms of professional education, if by no other means than by making it unequivocally postbaccalaureate.

Since the Second World War, medical schools have come to state their aims more broadly, in terms of the welfare of humanity in relation to the environment. More flexible curricular alternatives have been developed which include interdisciplinary and interprofessional learning opportunities, and which encourage the student to pursue a broad, liberalized program of studies.

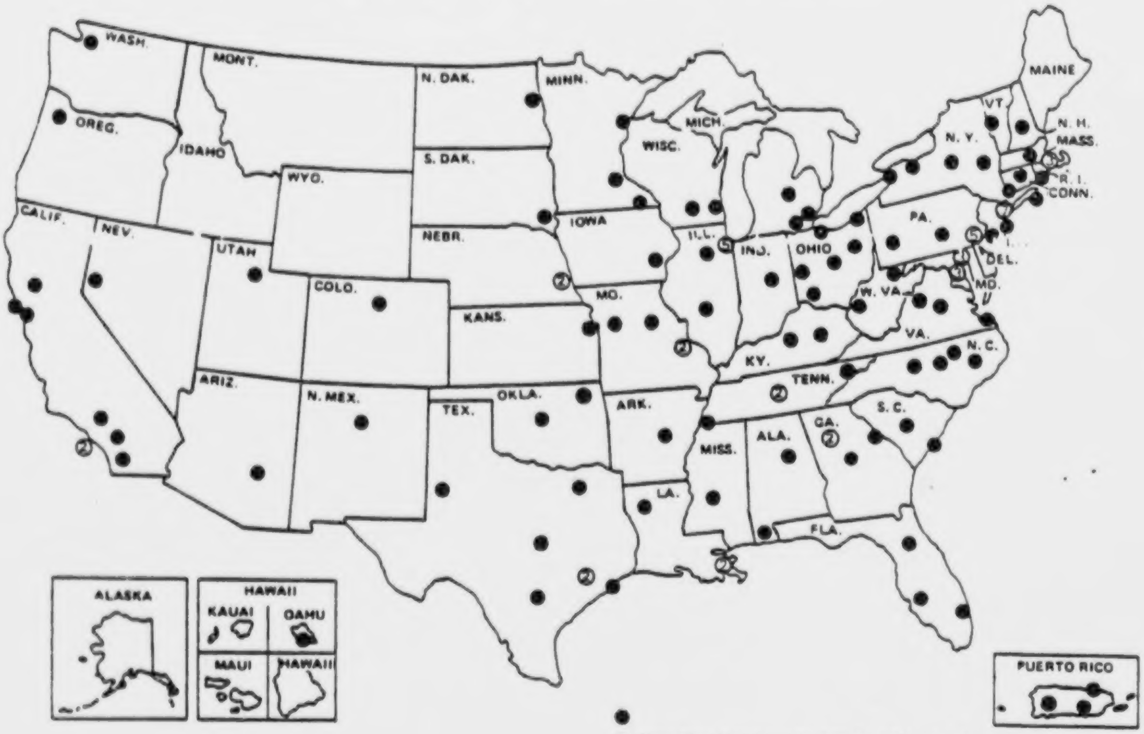
U.S. medical schools are highly diverse. Each has evolved to meet local, regional, or national goals within its own organizational, financial, and social restraints. This diversity has provided the nation with a wide variety of medical service options that are adapted to local and regional differences.

In the last decade, the role played by U.S. medical schools in the national medical care effort has increased. Society has come to expect constant gains in the prevention, diagnosis, and treatment of disease and continual improvement in the state of its health. As a result, medical schools have evolved into large, complex academic medical centers with the primary goal of advancing the health of the nation through education, research, and patient care.

Number and Location of Schools. The number of U.S. medical schools accredited by the Liaison Committee on Medical Education (LCME) grew from 86 in 1960 to 127 in 1983. Forty-four states, the District of Columbia, and Puerto Rico each have at least one medical school. See Figure 1. The six states without medical schools have negotiated agreements with schools in neighboring states to educate their residents who wish to study medicine.

FIGURE ONE

MEDICAL SCHOOLS IN THE UNITED STATES, 1983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ALA.
GA.
LA.
FLA.
ALASKA
HAWAII
KAUAI
OAHU
MAUI
HAWAII
PUERTO RICO
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●

ⓝ More Than One Accredited Medical School in Area

Source: Liaison Committee on Medical Education.

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At present, 52 medical schools (41 percent) are privately owned; however 36 of these schools received financial assistance in 1980-81 from the states in which they are located.

Applicants. Historically, the number of applicants to medical schools has borne a fairly constant relationship to the number of 22-year olds in the population. If this relationship continues, the gradual decline in the applicant pool begun in the late 1970's will continue throughout the 1980's. Another reason currently being advanced to explain, at least partially, the decline in the applicant pool is the availability of other professions which offer the promise of high salaries with significantly less years of training, such as engineering and business.

The ratio between applicants and available first-year positions, a measure of the competition of admission, has historically been approximately 2:1. If the number of first-year positions remains constant, approximately 36,000 applicants will be required each year to maintain this ratio. The applicant-to-position ratio reached a high of 2.8:1 for the entering classes of 1973 through 1975, then decreased sharply as the pool of applicants to medical schools declined from the high of 42,624 in 1974 to 35,730 in 1982. Statistics on medical school applications and enrollment over the last half century are shown in Table 1.

Enrollment. According to an AAMC study conducted in Fall, 1984, for the third consecutive year fewer students were admitted to U.S. medical schools than in the preceding year. Although the total number of applicants to medical school increased slightly to 35,944 from 35,200 a year ago, the 16,395 students admitted to the 127 U.S. medical schools represent a 0.5 percent decline again this year from those admitted last fall. While five medical schools increased their entering class size by five or more students; 12 reduced their entering classes, citing reduction in state funding levels following federal predictions that the U.S. will soon have a physician surplus. During the last five years there has been a loss of 515 first-year places, even though some new medical schools have been established during this period. There has been a continuing decline in the applicant pool since its peak in 1974-75. The largest single decrease in newly admitted students is a 2.9 percent decline in the number of white males admitted in spite of a slight increase of white males in the national applicant pool.

Total enrollment in the nation's medical schools has decreased for the first time in 37 years. A total of 67,016 medical students are registered for the fall of 1984-85 in comparison to 67,327 a year ago. The decrease from 1983-84 is 0.5 percent as compared with a 0.9 percent increase for the previous year.

Minority Enrollment. The underrepresented minority students enrolled in the 1982 entering class included 1145 Black Americans (6.6 percent), 62 American Indians (0.4 percent), 305 Mexican Americans (1.8 percent), and 114 mainland Puerto Ricans (0.7 percent). Between 1968 and 1973 the number of these underrepresented minorities enrolled in first-year medical school classes rose from 292 to 1301. Since 1973, the number has risen more slowly, reaching only 1626 in 1982, due in large part to stabilization of the number of minority applications to medical schools at approximately 3000. See Figure Two.

TABLE ONE

MEDICAL SCHOOL APPLICANTS, FIRST YEAR AND TOTAL ENROLLMENTS, AND GRADUATES 1930-31 THROUGH 1982-83

Class Year	Applicants	Accepted Applicants	Applicants/ Acceptance Ratio	First-Year Enrollment*	Total Enrollment	Graduates
1930-31	—	—	—	6,456	21,982	4,735
1931-32	—	—	—	6,260**	22,135	4,936
1932-33	12,280	7,357	—	6,426**	22,466	4,895
1933-34	—	—	—	6,457**	22,799	5,035
1934-35	—	—	—	6,356**	22,888	5,101
1935-36	—	—	—	6,605	22,564	5,183
1936-37	—	—	—	5,910**	22,095	5,377
1937-38	—	—	—	5,791**	21,587	5,194
1938-39	—	—	—	5,754	21,302	5,089
1939-40	—	—	—	5,794**	21,271	5,097
1940-41	—	—	—	5,837	21,379	5,275
1941-42	—	—	—	6,218	22,031	5,163
1942-43	—	—	—	6,425	22,631	5,223
1943-44	—	—	—	6,561	23,529	5,134
1944-45	(2nd session)#					5,169
1944-45	—	—	—	6,523	24,028	5,136
1945-46	—	—	—	6,060	23,216	5,826
1946-47	—	—	—	6,564	23,900	6,389##
1947-48	18,829	6,512	2.9	6,847	22,739	5,543
1948-49	24,242	6,973	3.5	6,688	23,670	5,094
1949-50	24,434	7,150	3.4	7,042	25,103	5,553
1950-51	22,279	7,254	3.1	7,182	26,191	6,135
1951-52	19,920	7,663	2.6	7,436	27,076	6,080
1952-53	16,763	7,778	2.2	7,425	27,688	6,668
1953-54	14,678	7,756	1.9	7,449	28,227	6,861
1954-55	14,538	7,878	1.8	7,576	28,583	6,977
1955-56	14,937	7,969	1.9	7,686	28,639	6,845
1956-57	15,917	8,263	1.9	8,014	29,130	6,796
1957-58	15,791	8,302	1.9	8,030	29,473	6,861
1958-59	15,170	8,366	1.8	8,128	29,614	6,860
1959-60	14,952	8,512	1.8	8,173	30,084	7,081
1960-61	14,397	8,560	1.7	8,298	30,288	6,994
1961-62	14,381	8,682	1.7	8,483	31,078	7,168
1962-63	15,847	8,959	1.8	8,642	31,491	7,264
1963-64	17,668	9,063	1.9	8,772	32,001	7,336
1964-65	19,168	9,043	2.1	8,856	32,428	7,409
1965-66	18,703	9,012	2.1	8,759	32,835	7,574
1966-67	18,250	9,123	2.0	8,964	33,423	7,743
1967-68	18,724	9,702	1.9	9,479	34,538	7,973
1968-69	21,118	10,092	2.1	9,757	35,102	8,059
1969-70	24,465	10,547	2.3	10,397	37,978	8,367
1970-71	24,987	11,500	2.2	11,367	40,477	8,974
1971-72	29,172	12,335	2.4	12,278	43,576	9,558
1972-73	36,135	13,757	2.6	13,642	47,523	10,396
1973-74	40,506	14,335	2.8	14,017	50,242	11,365
1974-75	42,624	15,066	2.8	14,978	54,076	12,716
1975-76	42,303	15,365	2.8	15,350	56,244	13,634
1976-77	42,155	15,774	2.7	15,667	58,266	13,614
1977-78	40,569	15,977	2.5	16,118	60,264	14,391
1978-79	36,636	16,527	2.2	16,613	62,582	14,966
1979-80	36,141	16,886	2.1	17,008	64,020	15,135
1980-81	36,100	17,146	2.1	17,205	65,503	15,673
1981-82	36,727	17,286	2.1	17,320	66,485	15,985
1982-83	35,730	17,294	2.1	17,254	66,748	—

*Includes repeating and reentering students.

** One to three schools failed to report enrollment data in the indicated years

# Under accelerated program, an extra class graduated in September 1944.

During the war accelerated programs altered reporting periods. During the period June 1, 1946 to June 30, 1947, ten schools graduated two classes, adding 40 graduates to the total (this figure included in total graduates).

Source: Association of American Medical Colleges Applicant Studies and Fall Enrollment Questionnaire
Liaison Committee on Medical Education Questionnaire, Part II

According to the 1984 AAMC study, underrepresented minorities (Black, American Indian, Mexican American and Mainland Puerto Rican) comprise 8.8 percent of this year's entering class, as compared to 8.5 percent last year. They make up 8.5 percent of the total number of U.S. medical students in comparison to 8.3 percent in academic years 1981-82 and 1982-83.

Enrollment of Women. Thirty-three percent of the U.S. medical school applicants in 1982 were women; 47 percent of these applicants were accepted. See Figure Three. According to the 1984 AAMC study, a total of 21,316 women are now enrolled, compared to 20,635 in 1983-84, a 3.3 percent increase. Overall, women hold 31.8 percent of the places in the nation's medical schools in the academic year 1984-85 in contrast to 24.3 percent in 1978-79.

Curriculum. The medical school curriculum usually covers 36 to 42 months ranging over four academic years. The curriculum begins with the study of the basic sciences of medicine:

-Anatomy (gross, microscopic, neurologic)
-Biochemistry
-Microbiology (bacteriology, parasitology, mycology, immunology)
-Pharmacology
-Physiology

The clinical services follow the basic sciences and include:

-Pathology
-Medicine
-Family Practice
-Surgery
-Obstetrics and Gynecology
-Pediatrics
-Psychiatry

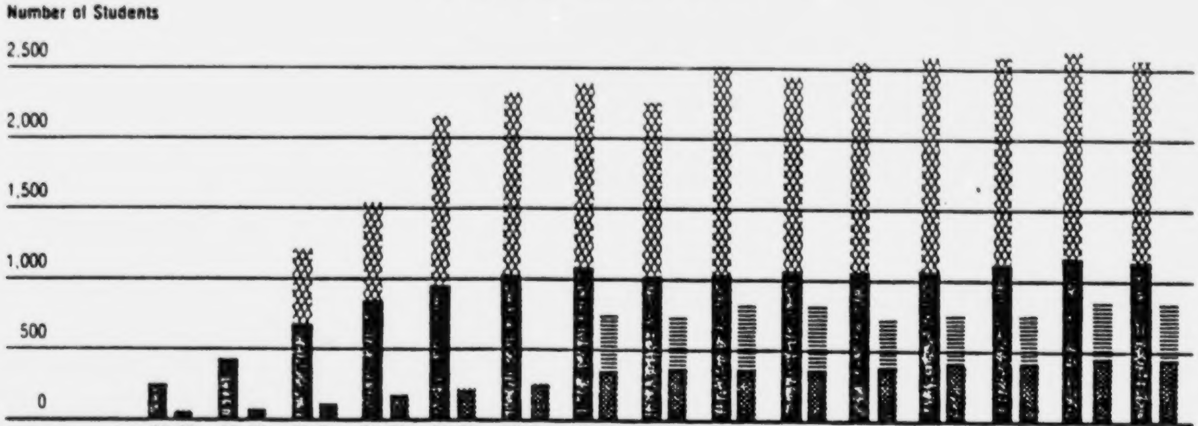
The bulk of clinical training for medical students is provided by these seven clinical departments with assistance from others including the surgical subspecialties such as ophthalmology, orthopedic, and urology; the medical subspecialties such as dermatology, cardiology, and gastro-enterology; and radiology.

Traditionally, the basic science subjects are taught in the first two years in preparation for the clinical experience. In recent years, however, didactic clinical instruction is being progressively introduced in the first two years to give greater meaning to the fundamentals taught in the basic sciences.

In the third year, instruction moves into the hospital, and students are assigned in sequence to each of the teaching services. One important aspect of this training is learning while participating in the care of patients. Under supervision of experienced faculty, students learn by interviewing, examining, and deliberating about patients who are either in a teaching hospital or its related clinics. No other profession requires that students be so intimately involved in professional activities while they are still learning. By the end of the third year, which often lasts a full 12 months, the student has had broad exposure to the various components of medical practice.

FIGURE TWO

MINORITY APPLICANTS AND ENROLLEES IN FIRST-YEAR MEDICAL SCHOOL CLASSES
1968-69 THROUGH 1982-83



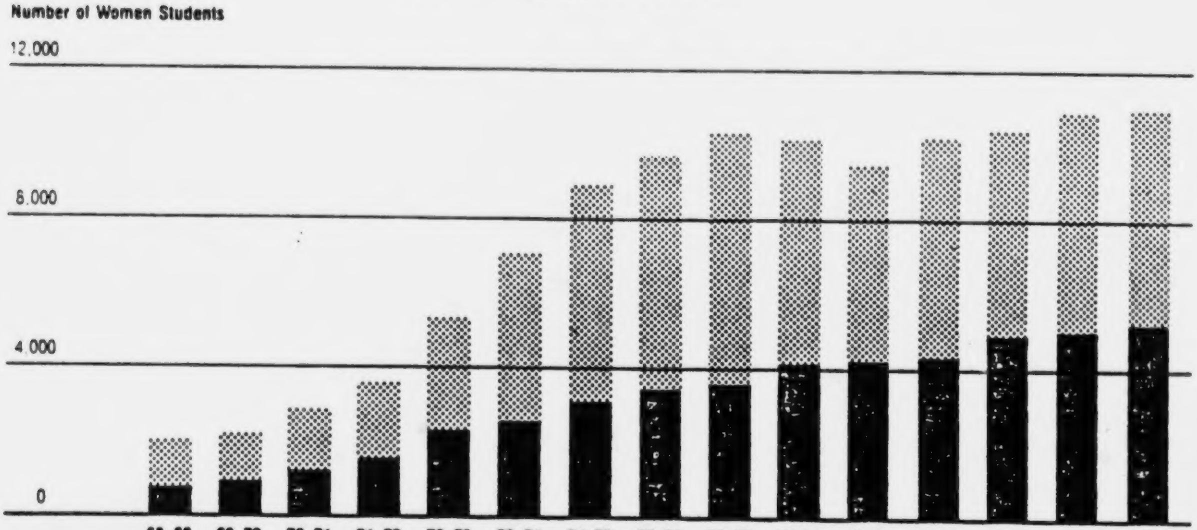
	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80	80-81	81-82	82-83
Black															
▩ **Applicants**	n.a.	n.a.	1,250	1,552	2,186	2,227	2,425	2,288	2,523	2,487	2,564	2,599	2,594	2,644	2,600
■ **Enrollment**	266	440	697	882	957	1,027	1,106	1,036	1,040	1,085	1,061	1,108	1,128	1,196	1,145
Other Underrepresented Minority															
▤ **Applicants**	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	751	761	800	812	757	781	787	897	853
▦ **Enrollment**	26	61	111	181	215	274	367	355	360	365	382	439	420	475	481

Source: Association of American Medical Colleges

n.a. Data not available

FIGURE THREE

WOMEN IN FIRST-YEAR MEDICAL SCHOOL CLASSES
1968-69 THROUGH 1982-83



	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80	80-81	81-82	82-83
▒ **Applicants**	2,097	2,289	2,734	3,737	5,480	7,202	8,712	9,575	10,244	10,195	9,561	10,222	10,664	11,673	11,685
■ **Enrollment**	887	948	1,256	1,693	2,300	2,790	3,275	3,647	3,858	4,130	4,162	4,173	4,966	5,317	5 462

Source Association of American Medical Colleges

The fourth year is generally structured to allow the student to begin to specialize. In some schools the fourth year is nearly all elective, in others more time is devoted to medicine and surgery. By the midpoint of their fourth year, students decide on a career specialty and seek a residency program designed to further prepare them for their chosen specialty.

During the last decade, great emphasis has been placed upon encouraging students to select careers as generalists, or primary care physicians. In 1983, 57 percent of the graduating class entered first-year graduate programs in the primary care specialties of family medicine, internal medicine, and pediatrics. See Figure Four.

Osteopathic Medical Education

The origin of osteopathic medicine is traced to the Civil War period when a physician named Andrew Taylor Still broke away from the established medical profession to establish osteopathic medicine as a separate form of practice. Having been denied teaching privileges in medical schools, he founded the first college of osteopathy in 1892. Dr. Still objected to the bloodletting, purges and drug methods which were part of the prevailing medical practices. By the time the Flexner report was released in 1917 and reform of American medical education was instituted, osteopathic medicine and its colleges had become established well enough to maintain their independence.

Osteopathic medicine was attacked by organized allopathic medicine as well as individual medical doctors (M.D.'s). The modern osteopathic medical profession maintains that much of the early controversy centered around Still as an individual who was outspoken and eccentric. His rejection of allopathic methods was quite selective, as he did not suggest that osteopathic therapy was the only acceptable form of treatment. As the profession developed, however, some states limited osteopathic practice to therapy which was distinctively osteopathic, and osteopathic physicians were not allowed to administer drugs or to perform surgery.

Osteopathic medicine today has changed significantly. Federal medical programs are open to both osteopathic and allopathic medicine. The federal government recognizes osteopathy through funding for research and hospital construction, Medicare and Medicaid, financial assistance to medical students, and service as medical officers in the Public Health Service and the armed forces. Doctors of Osteopathic medicine (D.O.'s) work with M.D.'s in over 400 joint staff hospitals, and this number is increasing. In 25 states D.O.'s and M.D.'s serve together on licensing boards and both kinds of physicians must take the same examination to qualify to practice. Public acceptance of D.O.'s has grown, and in no state is their practice limited.

In some parts of the country, osteopathy is the dominant mode of medical practice, and the U.S. Department of Labor predicts a wider acquaintance with and acceptance of the profession. These gains are due in large part to the commitment of osteopathic physicians to family and community medicine. An article in Science magazine notes that osteopathic medical schools stress preparation for family practice, and in a number of places D.O.'s have filled the medical vacuum left by M.D.'s no longer choosing general practice.

Number and Location of Schools. Osteopathic medical schools have grown in number from five to 15 in the period between 1969 and 1984. See Figure Five. Originally, a fundamental difference between osteopathic and allopathic medical colleges was their relationship to universities. Osteopathic schools originally developed as free-standing, privately supported non-profit institutions. Not until 1969-70 was the first state-supported osteopathic college established as part of Michigan State University. Today, some osteopathic colleges are free-standing and some are university-affiliated, and some are part of a state higher education system. Over half receive state subsidies. Approximately 75 percent of all revenues for public colleges is funded by state appropriations and grants, while state support accounts for 5 percent of total revenues for private schools.

Applicants. The number of applications to osteopathic colleges has remained relatively stable, dropping slightly during the previous four years. During 1979-80, 16,749 applications were filed to the twelve colleges reporting, and for the 1983-84 year, fourteen colleges reported 16,511 applications, a decrease of .8 percent from the previous year. Currently there are three student applications for each enrollment slot.

Applicants are expected to have completed the typical premedical program, and most have majored in a natural science. Osteopathic colleges do stress breadth of undergraduate course work and favorably consider students with liberal arts components in their academic preparation. Applicants must present scores from the Medical College Admission Test (MCAT) and must express an interest in family, community and preventive medicine.

Enrollment. The range in percentage increase in student enrollment in osteopathic medical colleges has been from five to twenty-one percent. See Figure Six. Since 1981 they have remained approximately six percent a year. In 1982, 1,682 freshmen enrolled, more than three times the number in the 1968 class. The colleges expect to stabilize their enrollment at about 1700 freshmen during the next few years.

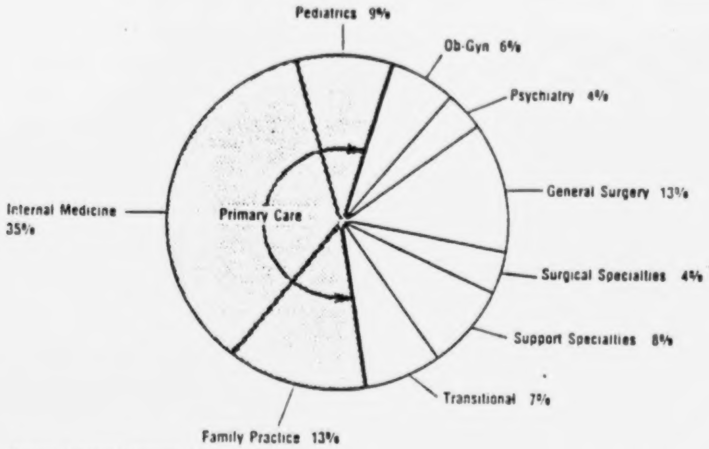
Minority Enrollment. Members of minority ethnic groups have been entering the osteopathic medical colleges at an increasing rate over the last six years. In 1976, minority students represented 5.4 percent of freshmen, and in 1982 that number had risen to 7.6 percent. See Table Two.

Total enrollment of members of minority ethnic groups increased from 155 students in 1976 to 355 students in 1976. The minority percentage increased from 4.2 to 6.1 percent. See Table Two.

Enrollment of Women. The entrance of women into osteopathic medical schools has increased dramatically over the last fifteen years. In 1969, only 2.4 percent of first year students were women. In 1982, slightly more than 25 percent of freshmen were female. Nearly 23 percent of the entire student body were women, and in June 1983, one of every five graduating osteopathic physicians was female. See Table Three.

FIGURE FOUR

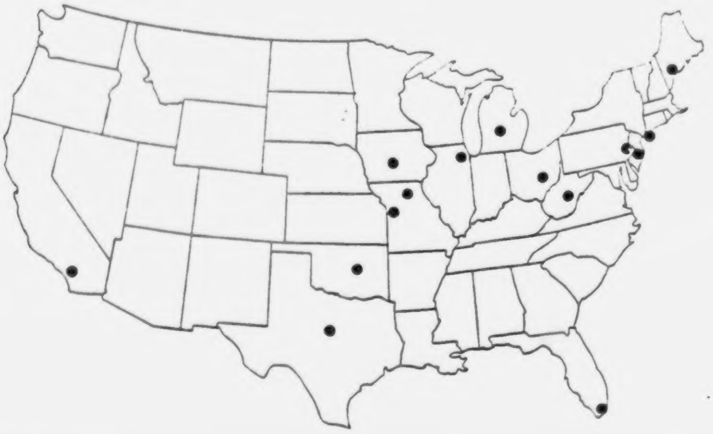
FIRST GRADUATE YEAR CHOICES OF 12,874 U.S. GRADUATES MATCHED IN NATIONAL RESIDENT MATCHING PROGRAM, 1983



Source: National Resident Matching Program

FIGURE FIVE

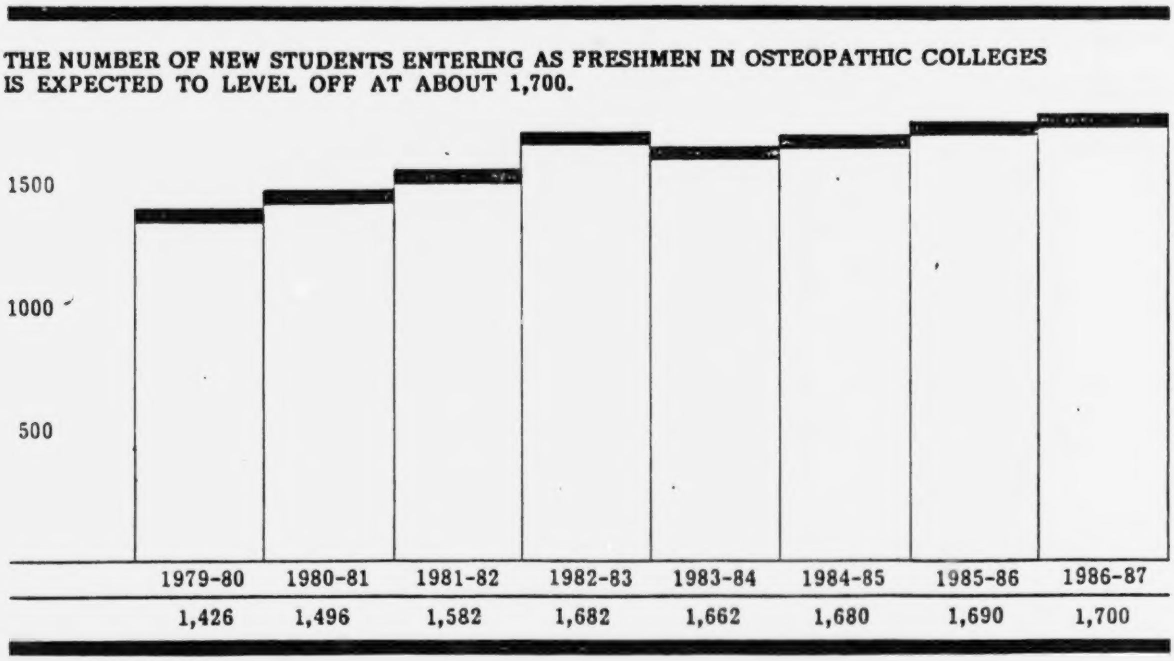
LOCATION OF COLLEGES OF OSTEOPATHIC MEDICINE



Source: American Association of Colleges of Osteopathic Medicine, 1984

FIGURE SIX

OSTEOPATHIC MEDICAL SCHOOL ENROLLMENT



THE NUMBER OF NEW STUDENTS ENTERING AS FRESHMEN IN OSTEOPATHIC COLLEGES IS EXPECTED TO LEVEL OFF AT ABOUT 1,700.

Source: American Association of Colleges of Osteopathic Medicine, 1984

TABLE TWO

TOTAL ENROLLMENT IN OSTEOPATHIC COLLEGES FOR ETHNIC GROUPS, BY ENTERING YEAR

GROUP	ENTERING YEAR						
	1976	1977	1978	1979	1980	1981	1982
Black American	70	76	87	100	94	104	116
American Indian/ Alaskan Native	16	19	24	26	19	26	25
Hispanic	27	33	36	45	52	62	81
Asian American/ Pacific Islander	42	45	45	70	87	109	133
TOTAL MINORITY	155	173	192	241	252	301	355
PERCENT MINORITY	4.2	4.4	4.5	5.3	5.1	5.7	6.1
White,Non-Hispanic	3,516	3,753	4,029	4,330	4,688	5,003	5,467
TOTAL ALL GROUPS	3,671	3,926	4,221	4,571	4,940	5,304	5,822

FIRST-YEAR ENROLLMENT IN OSTEOPATHIC COLLEGES FOR ETHNIC GROUPS BY ENTERING YEAR

GROUP	ENTERING YEAR						
	1976	1977	1978	1979	1980	1981	1982
Black American	26	26	31	40	40	37	38
American Indian/ Alaskan Native	6	8	10	6	8	12	10
Hispanic	12	13	17	18	18	22	33
Asian American/ Pacific Islander	15	16	16	29	33	33	46
TOTAL MINORITY	59	63	74	93	99	104	127
PERCENT MINORITY	5.4	5.4	5.6	6.5	6.6	6.6	7.6
White, Non-Hispanic	1,029	1,100	1,248	1,333	1,397	1,478	1,555
TOTAL ALL GROUPS	1,088	1,163	1,322	1,426	1,496	1,582	1,682

Source: American Association of Colleges of Osteopathic Medicine, 1984

TABLE THREE

FIRST-YEAR AND TOTAL ENROLLMENT AND GRADUATES IN SCHOOLS OF OSTEOPATHIC MEDICINE IN THE U.S., BY SEX, ENTERING YEAR 1968 THROUGH 1982

ENTERING YEAR	FIRST-YEAR ENROLLMENT			TOTAL ENROLLMENT			GRADUATES		
	Total	Women	% Women	Total	Women	% Women	Total	Women	% Women
1968	521	21	4.0	1,879	53	2.8	427	8	1.9
1969	577	14	2.4	1,997	59	3.0	432	12	2.8
1970	623	17	2.7	2,151	61	2.8	472	11	2.3
1971	670	29	4.3	2,304	79	3.4	485	18	3.7
1972	810	56	6.9	2,579	116	4.5	649	18	2.8
1973	884	83	9.3	2,780	181	6.5	594	17	2.9
1974	974	106	10.9	3,139	267	8.5	702	44	6.3
1975	1,038	140	13.5	3,443	362	10.5	809	58	7.2
1976	1,088	179	16.5	3,671	472	12.9	908	84	9.3
1977	1,163	192	16.5	3,926	570	14.5	971	68	7.0
1978	1,322	222	16.8	4,221	688	16.3	1,004	163	16.2
1979	1,426	265	18.6	4,571	789	17.3	1,059	192	18.1
1980	1,496	329	22.0	4,940	971	19.7	1,151	202	17.6
1981	1,582	378	23.9	5,304	1,108	20.9	1,017	186	18.3
1982	1,682	428	25.4	5,822	1,317	22.6	1,317	261	19.8

Source: American Association of Colleges of Osteopathic Medicine, 1984

Curriculum. The curriculum of osteopathic medical schools covers the same subject areas as allopathic medical education, with an additional 300-500 hours of instruction of manipulative therapy. The minimum period of time necessary to complete the D.O. degree is four years, regardless of other degrees that students might hold. Three schools allow students to work simultaneously toward both the D.O. and the M.S. or Ph.D. degrees.

The curriculum is divided into two parts, two years of basic science courses and two years of clinical science. The latter is community-based in such settings as community hospitals, clinics or physicians' offices. Students are also placed in osteopathic teaching hospitals. The colleges require an average of 11 clerkships from every student which amounts to 69 weeks of clerkship participation. The most extensive clerkships are those in internal medicine, family medicine, and surgery. Some schools require clerkships in pediatrics, geriatrics, obstetrics and gynecology, and psychiatry.

Medical Schools' Missions

Medical schools are complex and diverse institutions. The great majority of medical schools are not isolated organizational entities but are integral parts of a parent university, a medical center or an academic health center. While the primary role of a medical school is unvarying, to educate medical doctors, the faculty are also engaged in scholarly research and patient service.

Medical school faculties are composed of approximately 20 percent basic scientists and 80 percent physicians who are educators, scientists and highly skilled clinicians. Medical school faculty teach the practice of medicine by demonstrating the provision of patient care and by supervising medical students and residents as they learn to provide patient care.

The growth of teaching hospitals and medical research centers operated by medical schools exemplifies the complex mission of most medical schools. Technology development, clinical research and other innovations in medical care are generated by medical school faculty activities.

Many complex patient cases which are difficult or impossible to treat in a private setting are referred to teaching hospitals where a full range of sophisticated services is continually available. Additionally, medical school faculty and students enhance patient care at a great number of hospitals and clinics throughout a state or region through the medical schools' network of affiliations. University teaching hospitals traditionally care for large numbers of indigent patients for whom the Federal or state government has assumed responsibility. In many instances, a teaching hospital may be the only place a patient can find access to medical care.

Medical Schools as National Resources

Public medical schools have traditionally expanded their scope of interest and influence beyond the boundaries of the states in which they are located. Even though state-supported schools admit almost entirely state residents, the scope of their research and the further education of their students are not bound by state borders. The funding of medical schools reflects this national focus.

Only 21.8 percent of medical school funding comes from state and local monies. The federal government is responsible for 25.3 percent. Medical research benefits all people, regardless of location, and the training of students often occurs in a number of different sites. Medical school graduates often go into residency programs in different parts of the country. The exchange of ideas and advancements in knowledge occasioned by the mobility of medical students is beneficial to the quality of medical training and the dissemination of advances in medical practice.

III. THE MEDICAL PROFESSION

Medicine is known as a helping profession designed to serve the needs of patients. Increasingly the physician is viewed as one who encompasses health-promoting functions and who emphasizes caring as well as curing. One of the major functions of the physician in practice as an individual or as a member of a team is to make an accurate diagnosis by identifying the problem the patient presents and working out a plan of action. Physicians make decisions about diagnostic tests, the need for hospitalization, treatments to be used and drugs to be prescribed, and they perform surgery and other procedures.

Recent Trends in Medical Practice

Trends in the practice of medicine have changed significantly in recent years. While ambulatory care services remain the backbone of health care, it has become necessary for medicine and physicians to become more responsive to the needs and preferences of consumers. The majority of physicians in this country continue to work in a private practice, fee-for-service setting. Recently, however, an increasing number of physicians are preferring institutional practice which can provide regular hours, a less demanding routine, faster and more economical entry into practice, group malpractice insurance, salary, and less competition.

A significant change in the practice of medicine is due to the vast expansion of technology, with more diseases being diagnosed and receiving an increasing variety of treatments. As a result of technological advances, increased specialization in medical practice is evident. No longer are there merely the two categories of physician and surgeon. Specialization continues to increase, with subspecialities occurring in many disciplines, and an increasing number of physicians are specializing in the treatment of a single disease.

Physicians report that the thrust of malpractice litigation continues to affect their practice. They describe their practice of medicine as defensive, with an increased financial burden being borne by the consumer. Some suggest that there has been an increase in the number of unnecessary tests and treatment ordered to satisfy patients and to protect the physician's diagnosis and treatment.

Increasing numbers of nonphysician health care providers are assuming delivery of health care services. Some view these health care providers to be in competition with physicians, i.e., nurse practitioners with primary care physicians, psychologists with psychiatrists, optometrists with ophthalmologists. Historically physicians have experienced no change in their professional and economic positions as a result of these providers. In recent years, some physicians have begun to utilize them to extend the capacity of their own practices.

Medical Practice Settings

Allopathic Medical Practice. The initial point of patient contact with health care delivery is typically the primary care physician or in some cases a physician specializing in a particular discipline. See Table Four. The traditional provision of these services has been through a solo private practice. In 1975, 80 percent of physicians were practicing alone. By 1980 that percentage had decreased to 78 percent, indicative of a trend toward group practice which is expected to continue. See Table Five.

TABLE FOUR

Per Capita Physician Visits, by Source of Care and Patient Characteristics, United States, 1980

Characteristic	All Sources or Places	Doctor's Office, Clinic, or Group Practice	Hospital Outpatient Department	Telephone
Total[a]	4.7	3.1	0.6	0.6
Age				
Under 17	4.4	2.8	0.6	0.8
17-44	4.4	2.9	0.6	0.5
45-64	5.1	3.6	0.6	0.5
65 and over	6.4	4.8	0.7	0.6
Sex				
Male	4.1	2.7	0.6	0.5
Female	5.3	3.6	0.6	0.7
Race				
White	4.8	3.3	0.5	0.7
Black	4.6	2.6	1.2	0.3
Family income				
Less then $7,000	5.5	3.2	1.1	0.5
$7,000-$9,999	4.4	2.7	0.7	0.6
$10,000-$14,999	4.9	3.2	0.7	0.6
$15,000-$24,999	4.7	3.2	0.5	0.6
$25,000 or more	4.6	3.2	0.4	0.7
Geographic region				
Northeast	4.7	3.0	0.7	0.6
North Central	4.7	3.3	0.5	0.7
South	4.6	3.1	0.6	0.5
West	4.9	3.4	0.6	0.6

[a] Visits per person.

As published in Medical Education And Societal Needs: A Planning Report for the Health Professions, Institute of Medicine, 1983

As the number of practicing physicians increases, many new doctors are seeking salaried positions within an incorporated structure such as large multispecialty group practices; hospital ambulatory, emergency, critical care and subspeciality procedure facilities; manufacturing concerns; the military system and Veterans Administration; and in other public institutions. Predictions are that by 1990, 40 percent of practicing physicians will have entered practice since 1978. The changing attitude of physicians toward their employment is evidenced by the fact that 50 percent of all physicians now derive a portion of their income from salary related to some form of institutional practice.

In addition to the economics of group practice, expanded technological advances in medicine make group practice more expedient. It is increasingly difficult for one physician to acquire or sustain the necessary knowledge to access all of the available medical technology. Through group practice, physicians are able to share their expertise and provide the patient with expanded care at more reasonable costs.

Other environments in which physicians choose to practice are in hospitals, industrial health clinics, school health services, and public health clinics. It is expected that industrial health units and to some extent hospitals will significantly expand their employment of physicians in the future. Historically, female physicians more frequently choose this employment setting for practice, and with increasing numbers of women physicians, this trend is expected to continue.

A new form of health care delivery is the walk-in clinic. These free-standing clinics which provide primary and emergency care have been described as designed to meet the needs of the consumer. The number of such clinics increased from approximately 100 in 1980 to more than 1000 in 1983. Although only 50 percent of these have remained open, it is expected that by 1990, 5000 clinics will be generating four billion dollars annually. An increase is expected in chain management of these clinics.

A predicted change in the role of hospitals in provision of medical care is that they will become more diversified and will begin to offer some of their traditional "in-patient" services outside the hospital setting. Free-standing surgical-care centers are opening and mobile units are offering specialized services such as CT scanners. Physicians are altering their current practice methods in order to participate in this new delivery system.

Productivity and Income of Allopathic Physicians. In recent years there has been a decline in the average number of physician office visits in both metropolitan and non-metropolitan areas. During the decade between 1970 and 1980, a decrease occurred in the number of hours per week a physician practiced, the number of patient visits per week, and the number of patient visits per hour. See Table Six. Some attribute this decrease to the greater number of physicians entering the profession.

In the decade between 1972 and 1982, physicians' median net earnings rose an average of 7.2 percent annually, somewhat lower than the 8.7 percent average rise in the cost of living. The 1982 median practice earning for physicians in this country was $93,270. See Table Seven. The South Atlantic, Mid-southern and Southwestern states had the highest regional mean in the country, $98,410.

TABLE FIVE

Number of Medical Group Practices and Physicians in Group Practice, by Type of Practice, United States, Selected Years

	1969		1975		1980	
Type	Groups	Physicians	Groups	Physicians	Groups	Physicians
Single Specialty	3,169	13,053	4,601	23,572	6,156	29,456
Multispecialty	2,418	24,349	2,976	39,311	3,552	54,122
Family Practice	784	2,691	906	3,959	1,054	4,712
Total	6,371	40,093	8,483	66,842[a]	10,762	88,290[b]

[a] 19.9 percent of the 335,608 professionally active physicians.

[b] 21.5 percent of the 409,992 professionally active physicians.

SOURCE: American Medical Association. Research Notes Vol. 4, No. 2, Spring 1981.

TABLE SIX

Trends in Hours of Work, Patient Visits, and Visits per Hour of Work of M.D.'s, 1970 to 1980

Year	MD practice hours per week	Patient visits per week	Visits per hour
1970	51.4	132.5	2.58
1971	53.6	135.8	2.53
1973	50.8	137.7	2.71
1974	49.9	125.8	2.52
1975	51.8	126.5	2.44
1976	52.2	128.5	2.46
1978	50.3	130.6	2.60
1979	49.7	122.7	2.47
1980	49.6	112.0	2.26

Source: Medical Education and Societal Needs: A Planning Report for the Health Professions. Institute of Medicine, 1983.

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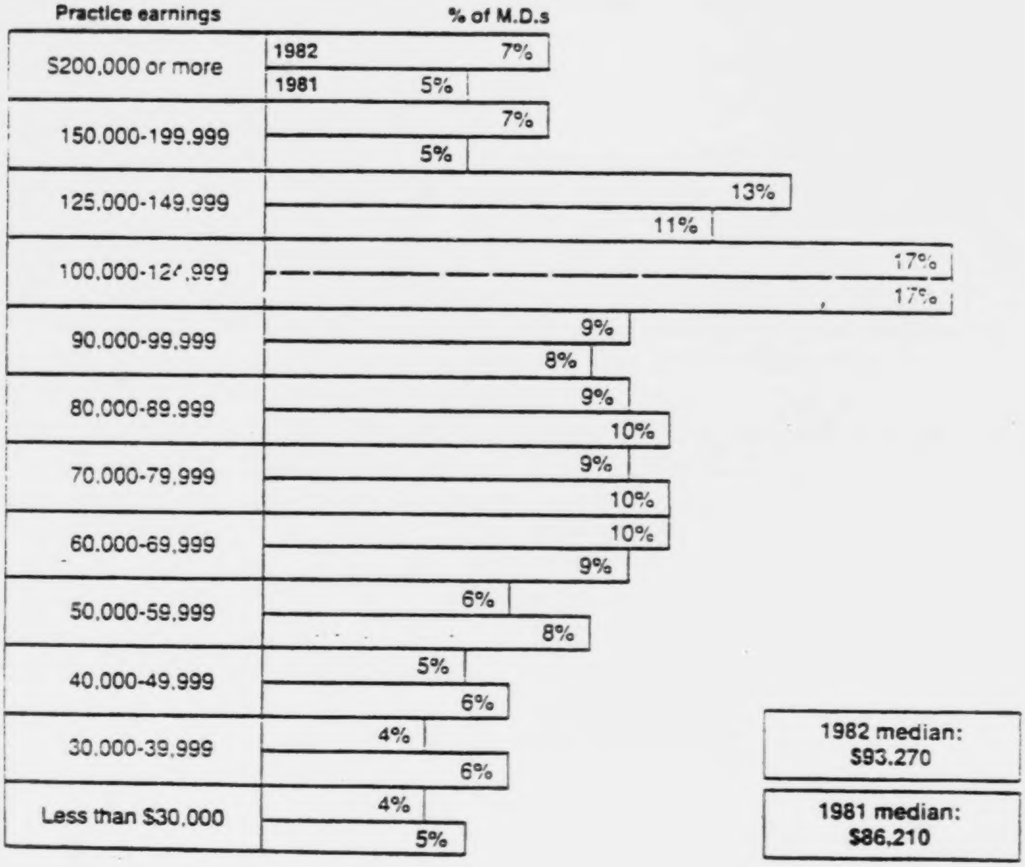
TABLE SEVEN

MEDICAL PRACTICE EARNINGS



Source: Owens, Arthur. Earning's Survey. Medical Economics September 19, 1983.

A difference is noted in the net and gross earnings of a physician in solo practice and a physician in group practice. See Table Eight. Incorporated practices show a difference of $21,320 gross earnings between solo and group practice and $15,060 net difference, with group practice generating more income. Typical office-based physicians reach their earning peak in the first eleven years of practice, with annual earnings during the second half of this period increasing by 35 percent. During the remainder of practice years the increase over the first five years of practice averages 25 percent.

Osteopathic Medical Practice. Over 10 percent of the American public, approximately 20 million persons, use osteopathic physicians (D.O.'s) for their total health care. One basic difference between osteopathic and allopathic medicine is that osteopathic physicians emphasize the use of structural diagnosis and manipulative therapy in concert with all the other traditional forms of diagnosis and treatment of the patient. Osteopathic medicine stresses a holistic approach to health care. Though the profession acknowledges the importance of the nervous and circulatory systems, it maintains that malfunctions of the musculoskeletal system can have deleterious effects upon the other systems. Manipulative therapy is used in some cases after preliminary examination and diagnosis to relieve pain or treat other conditions. Such therapy is often administered along with the drug prescriptions employed, and surgery is prescribed when necessary. In much of patient care, M.D.'s and D.O.'s use the same methods. Both use the same or similar diagnostic techniques and resources, prescribe essentially the same remedies and drugs and duplicate many highly refined specialty categories.

Approximately 87 percent of all D.O.'s are engaged in general practice and another four percent practice in primary care specialties. The emphasis in osteopathic medical practice is on family, community, and preventive medicine. More than 50 percent of licensed osteopathic physicians practice in rural areas and communities having populations of less than 50,000. Over 16 percent of D.O.'s practice in communities over 500,000 in population in the areas typically under-served by other medical professionals. See Table Nine.

A recent study of osteopathic education funded by the Kellogg Foundation called osteopathic medicine the fastest growing health care profession and estimated that the rising number of osteopathic physicians is likely to continue. As of July 1982 there were 20,494 licensed D.O.'s in the United States, a 4.1 percent increase from 1981 and an 8.9 percent rise above 1980. See Table Ten. The Florida Department of Professional Regulation records 1,163 osteopathic physicians holding active licenses as of August 1983 and 1,237 as of December 1983. The Department has not kept records of the number of active licenses for the preceding years. The total number of license-holders, active and inactive, was 2,917 in July 1983 and 3,150 as of July 1983. The Florida Department of Education was able to document that 910 D.O.'s were practicing in 36 Florida counties in 1983. Nine of these 36 counties have a single practitioner.

Alternative Ways of Financing Health Care

Prior to the mid-twentieth century, patients typically paid for services themselves through direct transactions with the doctor, the pharmacist, or the hospital. With the recent growth of health insurance and third-party payments, patients have become removed from the financial transactions for their health care. Increasing numbers of underwriters and providers are offering choices in

TABLE EIGHT

DIFFERENCES IN PRACTICE INCOME

BY TYPE OF PRACTICE . . .

Gross	Incorporated	Net
$194,800	Solo	$98,490
$173,480	Multiphysician practice	$113,550
	Unincorporated	
$112,740	Solo	$64,380
$133,000	Expense-sharing	$77,140
$141,250	Partnership or group	$85,530

AND BY YEARS IN PRACTICE

Gross		Net
$123,750	1-5	$78,500
$175,000	6-10	$106,230
$173,600	11-20	$103,330
$156,670	21-30	$89,310
$139,290	31 or more	$81,070

Source: Owens, Arthur. Earning's Survey. Medical Economics. September 19, 1983.

TABLE NINE

DO statistics by population size of community*

Community size	Distribution	% of total
Under 20,000	6,681	39.0
20,000 to 24,999	545	3.2
25,000 to 49,999	1,421	8.3
50,000 to 74,999	1,048	6.1
75,000 to 99,999	454	2.7
100,000 to 124,999	445	2.6
125,000 to 149,999	522	3.1
150,000 to 174,999	97	.6
175,000 to 199,999	1,135	6.6
200,000 to 299,999	774	4.5
300,000 to 499,999	885	5.2
500,000 to 999,999	1,762	10.3
Over 1,000,000	1,138	6.6
Total	16,907	98.7
Foreign total	121	.7
Unidentified records	113	6
Grand total	17,141	100.0

*Kellogg project, May 1979

Source: Owens, Arthur. Earning's Survey. Medical Economics. September 19, 1983.

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TABLE TEN

THE OSTEOPATHIC PROFESSION

Distribution of Osteopathic Physicians, as of July 29, 1982

LOCATION	NUMBER OF OSTEOPATHIC PHYSICIANS
Alabama	19
Alaska	10
Arizona	563
Arkansas	33
California	478
Colorado	347
Connecticut	40
Delaware	68
District of Columbia	7
Florida	1,218
Georgia	153
Hawaii	30
Idaho	36
Illinois	554
Indiana	239
Iowa	582
Kansas	273
Kentucky	50
Louisiana	11
Maine	250
Maryland	43
Massachusetts	156
Michigan	3,159
Minnesota	66
Mississippi	27
Missouri	1,318
Montana	22
Nebraska	25
Nevada	47
New Hampshire	21
New Jersey	1,132
New Mexico	123
New York	554
North Carolina	36
North Dakota	7
Ohio	1,767
Oklahoma	715
Oregon	241
Pennsylvania	2,590
Rhode Island	91
South Carolina	21
South Dakota	27
Tennessee	80
Texas	1,182
Utah	17
Vermont	37
Virginia	64
Washington	253
West Virginia	128
Wisconsin	247
Wyoming	14
Guam	1
Canada	53
Foreign	58
Military/U.S. Public Health Service	1,211
TOTAL	20,494

Source: American Association of College of Osteopathic Medicine Annual Statistics Report, 1983.

financing health care, introducing an element of competition for provision of such coverage.

An alternative delivery system has developed in which physicians themselves are participating. Known as pre-paid care, these organizations are rapidly challenging the fee-for-service practice. Health Maintenance Organizations (HMO's) were originally established as entire medical entities to provide pre-paid care. Now, however, new HMO's are contracting with existing medical practices and hospitals for services. Another new delivery system is the Preferred Provider Organization (PPO's). These groups contract with physicians to provide services at discounted rates. In recent years, the government has become the largest purchaser of health care with business and third parties next. Patient purchasing is the smallest percentage of health care revenues. The large organizations which purchase health care are the most interested in reducing costs, and they increasingly are utilizing PPO's.

Licensing

Only M.D.'s and D.O.'s are qualified to be licensed as physicians and to practice all branches of medicine and surgery. Allopathic and osteopathic physicians are licensed to practice all phases of medicine in all 50 states. In 32 states, M.D.'s and D.O.'s are examined by the same state licensing board and must pass the same examination. In Florida, however, M.D.'s and D.O.'s are governed by two separate boards and practice acts. (In 1974 the Florida Health Manpower Council recommended that Florida should move toward the development of a common licensure board for M.D.'s and D.O.'s.)

IV. HEALTH STATUS IN FLORIDA: A CHANGING POPULATION

A dramatic shift has occurred in the health status of the American population during the progression of the twentieth century. In the early 1900's the most frequent causes of illness and death were infectious diseases such as smallpox, cholera and tuberculosis. The latter half of the century, however, has shown the near elimination of these diseases. The current major causes of morbidity and mortality are heart disease, cancer, stroke and diabetes. In 1900, cancer caused five percent of all deaths, while in 1978 that rate increased to 22 percent of deaths. During the same period, deaths from heart disease increased from nine percent to 34 percent.

The significant reduction in infectious disease in this country is attributed to changes in environmental sanitation measures, clean water, and the development of wide-spread use of childhood immunization against disease. With the Industrial Revolution came the recognition that the health status of workers was directly related to their environment. The result was the growth of community-wide preventive health programs and an educational effort which enabled much of the American population to experience new sanitation in their environment and water and to receive immunization against disease.

Significant progress has been made in medical science during recent years. New methods have been developed in surgical techniques, medical technology and drugs for treatment of chronic diseases. The mortality rate in every age sector of the population has declined while life expectancy at birth has increased for all race and sex groupings. See Table 11. In Florida, the age specific death rate per 100,000 population declined in each of the age categories. See Table 12. The largest decreases were in the under one year and the over sixty-five age groups, with the number of deaths per 100,000 decreasing by 410.5 and 515.8 respectively.

Health Status of Floridians

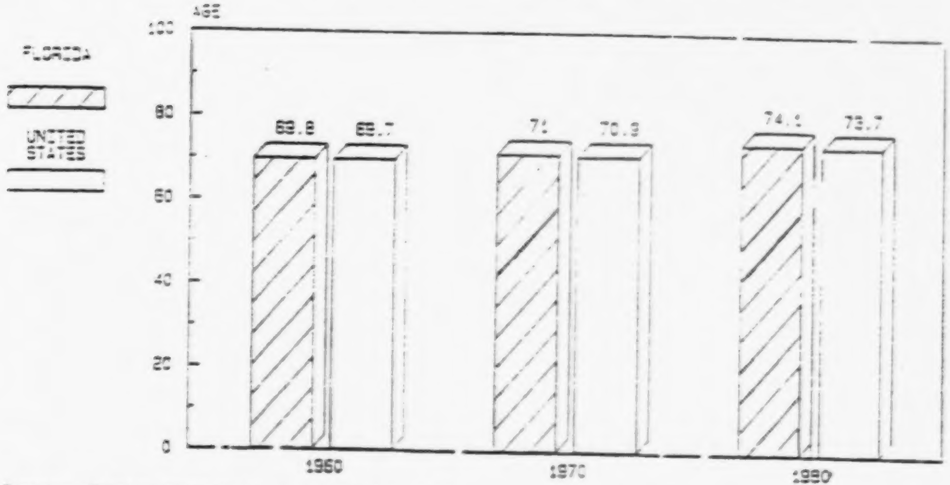
A depiction of the health status of Floridians reveals the differences in cause of death for each age group. The very young tend to die from biological complications, while accidents and violence claim the largest number of lives of adolescents and young adults. Most adult deaths are attributed to chronic conditions such as cancer, heart disease, and stroke.

Infants. Florida's 1983 infant mortality rate of 12.1 per 1000 live births was the lowest ever recorded, yet it remained higher than the national figure. In the last five years there has been only a slight decrease in this rate, and in 1981, only nine other states had rates higher than Florida. See Table 13. Infant mortality is higher for Florida's non-white population and is more prevalent in rural areas. In 1982, the state's non-white infant mortality rate was double that of the white population. See Table 14.

Ages 1-14. As a result of the widespread use of vaccines and antibiotics, the previous major causes of death and disease for children in this age category have been eliminated. In Florida, this age group has the lowest death rate. See Table 12. The major threats to the health of children are environmental and lifestyle-related, with automobile accidents the primary cause of death. Another problem affecting the health of children is physical and emotional abuse which results in injury.

TABLE 11

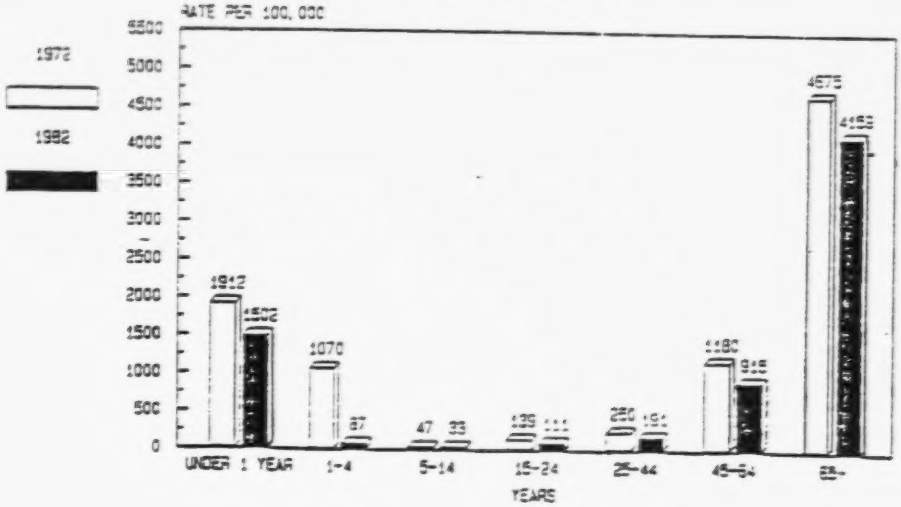
AVERAGE LIFE EXPECTANCY AT BIRTH, FLORIDA AND THE U.S.



Source: Florida Vital Statistics; Statistical Abstract of the U.S., 1984.

TABLE 12

AGE SPECIFIC DEATH RATES PER 100,000
FLORIDA, 1972-1982



Source: Florida Vital Statistics.

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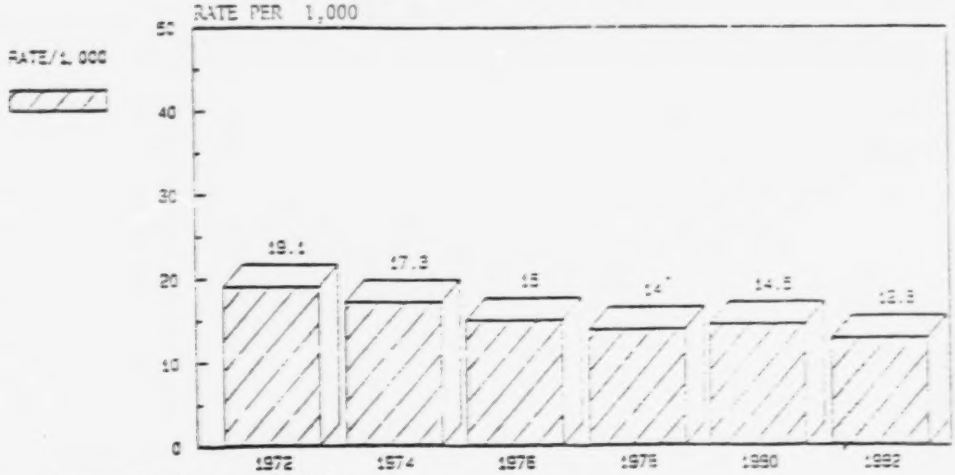
TABLE 13

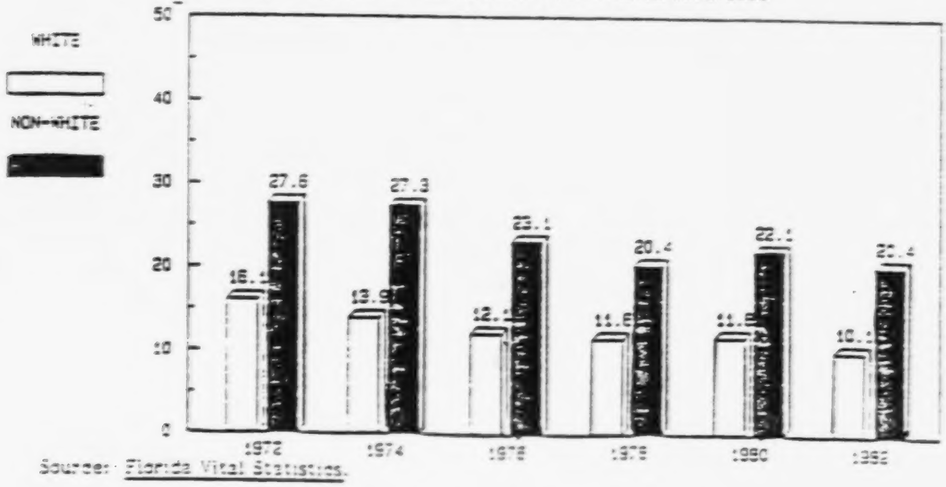
FLORIDA'S INFANT MORTALITY RATE
RESIDENT INFANT DEATHS PER 1,000, 1972-82



Source: Florida Vital Statistics.

TABLE 14

FLORIDA'S INFANT MORTALITY RATE
RESIDENT INFANT DEATHS, WHITE AND NON-WHITE, 1972-1982



Source: Florida Vital Statistics.

The major cause of illness among children is communicable disease. Florida statutes require immunization before enrollment in schools, and a 1983 survey revealed that 97 percent of pre-schoolers and those entering first grade had been immunized. Certain segments of the population, however, have been shown to need immunization, particularly children of immigrants, migrant farm workers, and refugees.

Ages 15-24. Morbidity and mortality indicators reveal this segment of the population to be relatively healthy. The most common health problems are related to lifestyle factors such as violent deaths and injury, alcohol and drug abuse, pregnancy, sexually transmitted diseases and poor nutrition habits.

Florida's mortality rate for this age group has declined during the last decade, but incidences of homicide and suicide have increased by 122 percent between 1962 and 1982. National figures reveal that young adults between 18 and 24 are twice as likely to die or cause death or injury in a motor vehicle than persons over age 25.

Ages 25-64. Significant gains have been made in the health status of adults, with the mortality rate declining dramatically in the last decade. The causes of death of the younger portion of this age group, 25-44 year olds, are lifestyle related, with accident and homicide accounting for the largest portion of deaths. Those persons between 44-64 die from chronic diseases such as cancer, heart disease and stroke. Health professionals believe that the stressful lifestyles of the younger group produce overeating, high levels of consumption of alcohol, other substance abuses, smoking and other unhealthy activities. As a result, when these persons move into the 44-64 year category, they begin to suffer from the effects of earlier activities with such conditions as obesity, high-blood pressure and diabetes. See Table 15.

Age 65 and Older. Persons over age 65 are more likely than the younger population to suffer from multiple, chronic conditions which are frequently disabling. This segment of the population is the largest consumer of health services. Health professionals express concern about the rapid growth in health costs in combination with the growing proportion of the population in this age group. It is projected that by the year 2000 more than 20 percent of Florida's population will be over age 65.

Demographic data reveal that the health status of the very old, persons 80 years and older, is significantly worse than that of the younger old. It is the very old group which is increasing the most in proportion to the general population.

In the decade between 1972 and 1982, the death rate for Floridians age 65 and over decreased by 11 percent. While heart rate and stroke declined slightly as causes of death, cancer showed an increase. With increased longevity, promotion of preventive health care measures becomes vital to the health and well-being of such a large segment of society.

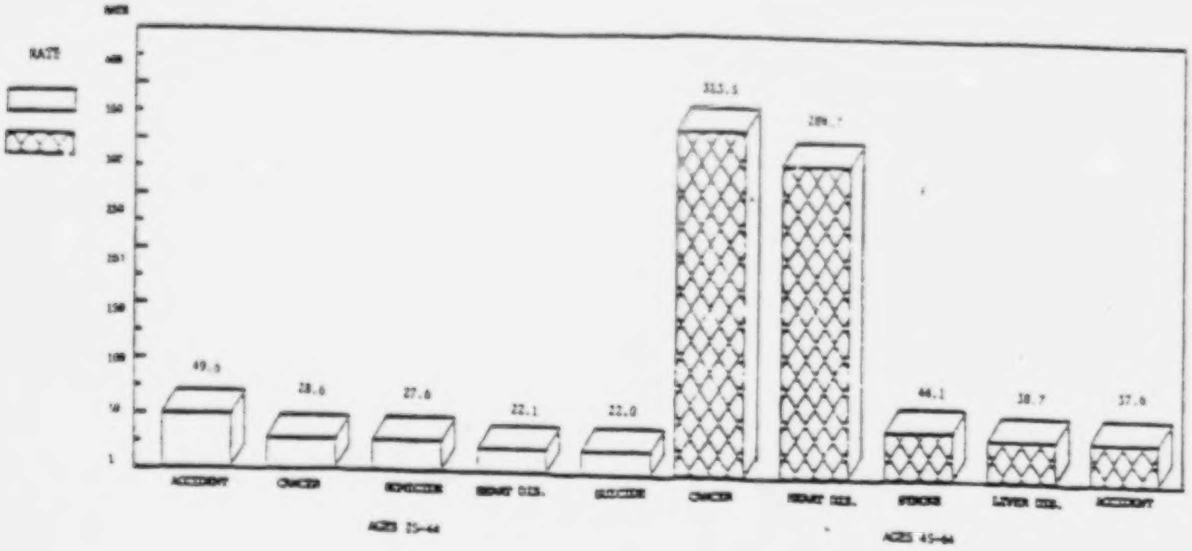
Effect of Income on Health Status

Certain socioeconomic characteristics relate to both the real and perceived health status of the population. A correlation exists between low income and malnutrition and unsanitary living conditions. Ninety percent of Florida families live above poverty levels. While reflecting the lowest poverty rate in

TABLE 15

LEADING CAUSES OF DEATH IN FLORIDA, AGES 25-64

1982



Source: 1985-87 Florida State Health Plan (Preliminary), Volume II, Florida Department of Health and Rehabilitative Services.

the Southeast, this figure is slightly above that of the nation as a whole. Between 1969 and 1979, the proportion of Florida citizens below the poverty level declined at a rate twice that of the United States. The Florida median family income of $17,280 is higher than most southeastern states and is slightly lower than that of the nation.

Effect of Lifestyle on Health Status

While advances in medical research and practice affect the general health of the population, considerable attention is being given to the trends in economic conditions, human values, and society which affect the way people care for themselves. As the United States population has become more affluent, it has become more sedentary in life-style and dependent on automobiles and public transportation. Technology has led to increased leisure time which could be spent in "spectator sports" made available through advances in media technology. Some futurists predict that in the remainder of this century information technology will become so advanced that much work and even shopping will be done electronically. Concern has been expressed that over-use of electronics could become a major health hazard by the year 2000.

Concurrent with spiraling advances in technology has been a gradual change in values of the American population reflected in changing lifestyles. A growing public interest in nutrition, exercise and health promotion is evident, and corporation "wellness" programs further confirm that the American population has shown a serious interest in its own physical well-being.

In 1976, the United States Senate Committee on Labor and Human Resources recommended passage of the Health Promotion Act of 1976. The Committee cited strong evidence that environment and individual lifestyles are major determinants of afflictions such as heart disease, cancer, stroke and accidents. The Committee further concluded that "there must be far greater emphasis on finding ways to reduce the incidence of diseases and conditions which result in suffering, disability, and death." As part of the legislation to be enacted, the intent of the Committee was to make health information and health promotion essential to national efforts to improve the health status of the American people.

Many modern health professionals believe the reduction of most of the current chronic diseases which cause premature illness and death can be achieved through preventive measures, but of a different kind than those of the twentieth century. The early actions which eliminated infectious disease were community-based, public efforts. Now, however, those efforts which will directly affect the health status of most Americans will be individual ones. Educational efforts must continue to show the general population the correlation between lifestyle and chronic disease.

Health Status of Minorities

Despite the considerable improvements that have been made in the health status of the general population and the health status of non-whites, striking differences remain between whites and non-whites for a number of key health status indicators; life expectancy for non-whites is approximately five years shorter than for whites; and infant mortality for blacks is almost double that of whites; and blacks have a higher incidence of and higher death rates from hypertension, strokes, and certain types of cancer. See Tables 16 and 17.

Studies have identified and documented the relationship between health status and access to care, and the influence of health care on death, disability, and illness. Significantly non-white populations constitute almost one-third of the population in health manpower shortage areas, in contrast to non-shortage areas where non-whites comprise 15 percent of the population. In urban shortage areas, non-whites constitute 47 percent of the population. Furthermore, studies have shown that urban blacks are more likely than urban whites to be without a regular source of care, and that blacks must travel for a longer period of time to receive care. Outpatient departments and emergency rooms are a more frequent source of care for blacks. See Table 18.

Hispanics are the second largest and fastest growing minority group in the United States. In assessing the health status and patterns of health services needs and utilization of Hispanics, it is important to identify the particular ethnicity of the population group. Health status and health care needs vary significantly among persons of Mexican, Cuban, Puerto Rican, and other Spanish origin. For example, Cubans, excluding the most recent immigration of Cubans in the 1980's, tend to have higher levels of education and higher incomes than Puerto Ricans and Mexicans. Therefore, there would most likely be a corresponding difference in health beliefs and health services utilization.

As a result of cultural and socioeconomic differences, migrant farm workers, refugees, and illegal aliens have health problems which include all age categories. More than 100,000 migrant farm workers are employed in Florida annually. Characterized by cultural diversity, this group is estimated to be 57 percent black, 10 percent Mexican-American, and 32 percent white. As a result of their mobile lifestyle and low income status, these persons have relatively poor health. Language and cultural barriers inhibit their ability to gain access to adequate health care. Their working environment causes additional problems related to pesticides and exposure to the elements. The health care needs of this group are met primarily through federally-funded clinics of which many health professionals believe there are too few.

Access to Health Care for Minorities

Over the last century and particularly in the last twenty years, equal access to health services has been generally regarded not as a privilege but rather as a fundamental right for all citizens. This belief has resulted in the development of public policies designed to improve access to health care for all people including those who have traditionally been underserved. During the 1960's and early 1970's, a series of federal programs in affirmative action, civil rights, and in health care was developed to improve access to care for minorities, and to expand the supply of health manpower, including minority health manpower.

A principle of equal access to health care allows that every person who shares the same type and degree of health need has an equally effective chance of receiving appropriate treatment of equal quality. Access may be measured by these different factors: the existence of services in the community, the availability of these services to all individuals and subgroups in the community, and the comprehensiveness of the services provided by primary care health personnel.

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TABLE 16

Estimated Average Length of Life in Years by Race and Sex Selected Years 1950-1980

Year	White Male	Racial Minority Male	White Female	Racial Minority Female
1980*	70.5	65.3	78.1	74.0
1978**	70.2	65.0	77.8	73.6
1975**	69.4	63.6	77.2	72.3
1970**	68.0	61.3	75.6	69.4
1960	67.4	61.1	74.1	66.3
1950	66.5	59.1	72.2	62.9

---

* Provisional data

** Excludes deaths of nonresidents of the United States

Source: U.S. Department of Health and Human Services, Public Health Service, National Center for Health Statistics, Health United States 1982 (Washington, D.C.: Government Printing Office, 1982)

TABLE 17

Infant Mortality Rates by Race United States: Selected Years 1950-1979

Year	Total Rate All Races	White Americans	Black Americans
1979	13.1	11.4	21.8
1978	13.8	12.0	23.1
1975	16.1	14.2	26.1
1970	20.0	17.8	32.7
1960	26.0	22.9	44.3
1950*	29.2	26.8	43.9

Note: Infant mortality rate is the number of deaths to infants under 1 year of age per 1,000 live births.

Source: U.S. Department of Health and Human Services, Public Health Service
National Center for Health Statistics:
Health United States 1981,
Health United States 1982,
(Washington, D.C.: Government Printing Office)

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TABLE 18

Assessment of Access to Health Care According to Access Indicators by Selected Demographic Groups

	Demographic Group							
Access Indicators	U.S. Population Percentage	Suburban Resident Percentage	Farm Resident Percentage	Low Income Percentage	High Income Percentage	Urban Blacks Percentage	Blacks in Rural South Percentage	Spanish S.W. Percentage
Regular Source of Care								
With	88	87	93	86	89	84	90	83
Without	12	13	7	14	11	16	10	17
Convenience								
Travel time to doctor								
less than 15 mins.	48	51	27	41	54	40	38	55
more than 15 mins.	52	49	73	59	46	60	62	45
Waiting time in office								
30 mins. or less	64	69	53	57	68	62	44	65
more than 30 mins.	36	31	47	43	32	38	56	35
Time spent with M.D.								
15 mins. or more	72	73	67	74	72	78	76	67
less than 15 mins.	28	27	33	26	28	22	24	33
Satisfaction								
Cost								
Satisfied	63	64	64	58	65	57	56	61
Dissatisfied	37	36	36	42	35	43	44	39
Waiting Time								
Satisfied	72	73	73	67	75	63	61	68
Dissatisfied	28	27	27	33	25	37	39	32
Utilization								
Seeing a Doctor								
Saw	76	78	68	73	79	77	65	65
Did not see	28	22	27	33	25	17	35	35
Seeing a dentist								
Saw	49	52	45	33	61	39	18	31
Did not see	51	48	55	67	39	61	82	69

Source: The Robert Wood Johnson Foundation "Special Report", Number One/1978 pp. 8-9 as reproduced in Health of Minorities and Women Chart Book, August 1982.

Even when medical providers are located in geographical proximity, the high and uncertain costs of medical care form a barrier to access as formidable as the lack of providers. To those with lower incomes, the high cost of routine care or lack of insurance coverage impede access. For middle-class persons, the occurrence of a catastrophic illness may have serious consequences for the economic viability of the family. For the aged, inflation and gaps in the Medicare program may require increased expenditures from meager and limited personal resources.

Available research indicates that the cost of medical services is an important variable affecting access to medical care among the Hispanic population. Medicaid and Medicare have facilitied access to medical services by the poor and the elderly. However, there are still large segments of the Hispanic population which are not eligible for these programs because of their illegal status or because their income is not low enough. Although the number of illegal Hispanic aliens is not known, estimates range from four to twelve million. Other groups do not avail themselves of these services because of lack of knowledge or reticence to use welfare programs. Migrant workers, especially those who are over 30 years of age or who do not speak English, are particularly low utilizers of health care services.

Education is an important factor in determining utilization of health services. Hispanics have much lower educational attainment levels than other racial and ethnic groups. In March 1979, 18 percent of the Hispanic population 25 years of age and over completed less than five years of education and 42 percent completed at least 12 years of education compared with 3 percent and 69 percent, respectively, for the non-Hispanic population. These data have special relevance for health status and health services utilization particularly in the area of preventive examinations or routine screening tests or procedures (e.g., chest x-ray, blood pressure check). Communicating with health personnel is an additional difficulty at times.

Studies show that blacks at any income or occupational level are less likely to have a continuing relationship with a physician. Private physicians are often not available and there seem to be few alternatives. Often, providers are either not located in their neighborhood or if they are, their fees are too high. See Table Nine.

Across the country, the patient-to-physician ratio is twice or more as high in poverty neighborhoods as in non-poverty neighborhoods. In addition, the available physicians tend to be generalists, not specialists, much older than the average physician; often from now extinct medical schools; lacking in board certification; and unavailable for house calls and for weekend and evening appointments.

Blacks disproportionately rely on public outpatient clinics and emergency rooms which cannot provide the continuity of care possible with private physicians. Moreover, the inappropriate use of emergency rooms is very costly to all concerned. Some analysts argue that because of past discrimination there exists a conscious preference among blacks for the impersonal clinic over the private physician. Black patients may wish to avoid intimate contact with what is usually a white physician and may prefer public clinics where contact is casual, segmented, and usually nonrepetitive. See Table 19.

TABLE 19

Number and Percent of Persons Utilizing
Specific Sources or Places of Outpatient Medical Care
During Year Prior to Interview, by Selected Characteristics, 1978

	Number of Persons (000's)	Source or Place of Care						
		Private Doctor Office or Clinic	Hospital Outpatient Clinic	Hospital Emergency Room	Company or Industry Clinic	Neighborhood Health Center	Home	Other & Not Known
		% Utilizing						
Race								
White	185,052	83.7	4.8	3.0	.8	1.5	.3	5.8
Black	25,645	63.5	14.8	5.3	.8	1.4	.1	8.1
Family Income								
Less than $5,000	23,944	71.0	11.0	4.4	.2	5.7	.5	7.1
$ 5,000 - 9,000	36,081	76.5	9.0	3.9	.5	3.2	.4	6.6
$10,000 - 14,000	36,882	81.7	5.8	3.7	.7	1.9	.1	6.1
$15,000 or more	96,230	85.9	3.9	2.7	1.1	1.1	.3	5.0
Place of Residence								
SMSA	146,441	79.4	7.0	3.4	.9	2.6	.3	6.3
Central City	61,289	73.7	10.2	4.1	1.0	3.5	.4	6.8
Outside Central City	85,152	83.6	4.7	2.9	.9	1.6	.3	5.9
Outside SMSA	67,387	84.9	4.1	3.0	.5	1.6	.2	5.7
Nonfarm	61,028	84.3	4.3	3.2	.5	1.7	.3	5.8
Farm	6,360	90.3	2.2	1.7	.2	.9	--	4.6
All Persons	213,828	81.2	6.1	3.3	.8	2.3	.3	6.1

Source: U.S. Public Health Service, National Center for Health Statistics as printed in Health of Minorities and Women Chart Book American Public Health Association, 1982.

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Research indicates that lifestyle and past health practices are related to current health status. It is necessary, moreover, to consider what has happened to these relationships over time. For example, the impact of being black on an individual's ability to purchase good housing and adequate medical care has changed over time. Even if elderly blacks are not seriously discriminated against in the medical care market today their current patterns of utilization and their health status may reflect the effects of past discrimination. In addition, an individual's inability to purchase an adequate diet or obtain preventive health care in the past because of insufficient income may also be reflected in his or her current health status.

It is clear that reducing the price of medical care reduces only the financial barriers to receiving care. Other barriers to access, such as time and distance to facilities, and culturally-induced barriers, such as the effects of past discrimination, continue to exist. In areas where these barriers are found to influence demand, policies have been initiated to subsidize indirect expenses such as transportation to facilities and to provide health education to the identified population groups.

Minority Physician Manpower Needs

Based on projections made in 1982 by the Health Resources Administration, although the supply of black U.S.-trained physicians will double by the year 2000, the number will still fall substantially short of parity. To achieve parity, the proportion of black physicians to total physicians would have to reach 11.7 percent. However, in 1980, black physicians accounted for only 2.6 percent of practicing physicians. Projections indicate that under the most optimistic set of assumptions, there will be 37,000 fewer black practitioners than needed to achieve parity. By the year 2000, the nation will produce less than half the black physicians needed to equal physicians to population ratios for whites.

Medical Needs in Rural Areas

The principal health problems facing rural residents are the shortages of health manpower and the inability of many people to purchase adequate health care. There are proportionally more poor people and more old people in rural areas. Both of these groups require more medical care than the general population.

Middle and upper income persons in rural areas are about as healthy as their urban counterparts, despite a shortage of health workers in rural areas. Based on reported surveys, most people appear satisfied with the medical care they receive.

Since there is little difference in the health of rural residents and urban residents overall, differences that do exist probably are best explained by the differences in age and income levels between people who live in rural areas and those who live in urban areas. There are proportionately more older people and more poor people in rural areas than in urban areas, and a strong correlation exists between the rates of illness and death and age and income.

The evidence is conclusive that rural residents have far fewer health workers available to attend to their needs than do people in urban areas. To improve health services for rural residents, it will be necessary to expand the supply of health workers for rural areas, improve the organization and administration of health systems in rural areas, and improve the ability of people to purchase health services. One strategy for expanding the number of physicians and other health workers in short supply has been through scholarships granted in return for commitments to serve in rural communities. Other incentives include subsidies in the form of grants, loans, or tax relief to start a practice in a rural community, a guaranteed income for a period of years and assurance of higher incomes by paying more for services or other forms of subsidies.

A critical issue relating to health manpower for rural areas concerns the degree to which physician extenders should and will become participants in providing care in rural areas. Given the cost and productivity implications of using physician extenders, it is clear that they must be a major consideration in the development of any plan to provide health services to people in rural areas.

Many isolated rural communities which have not been able to attract or retain a physician have established clinics which do not follow the traditional model of physician delivery of medical services. These clinics are staffed by specially trained nurse practitioners and physician assistants who are trained to provide primary care services traditionally performed only by physicians.

Hospitals. Rural areas generally are considered not to have a shortage of hospital beds, and in fact, are considered by many experts to have a surplus of beds. With the exception of rural communities with less than 2500 people, hospitals are generally favorably distributed between rural and urban areas.

Due to the great expense and highly specialized manpower needs, it may not be feasible to have a hospital in small rural communities. To insure that these needs are met, alternatives might include an emergency medical service system which can link people who need emergency care quickly and carefully to emergency care centers, as well as ambulatory care centers which have well-defined arrangements for support from large medical centers.

Maldistribution of Health Care Professionals

Health manpower forecasters are in close agreement that the overall supply of health professionals is sufficient to meet Florida's needs for health care through the year 2000. Recent forecasts by the Graduate Medical Education National Advisory Committee indicate that the United States has experienced rapid increases in the physician-to-population ratio since 1950 and this upward trend is expected to continue.

The U.S. has progressed from a ratio of 140 doctors per 100,000 in 1950, to 197 doctors per 100,000 population in 1980. It is estimated that there will be 271 doctors per 100,000 population in the year 2000, a 38 percent increase in the 20 years from 1980.

However, these statistics do not address the issue of geographic diffusion of these health care providers, or other access considerations. In fact, large portions of Florida are currently experiencing serious shortages of health care professionals.

Currently, 26 Florida counties are designated as health manpower shortage areas (HMSA's) which makes them eligible for the placement of National Health Service

Corps primary care providers. A health manpower shortage area is a geographic area within the State which meets federal criteria related to:

(a) the number of primary care medical practitioners serving the general population in that area (usually greater than a 3500:1 population to practitioner ratio), or

(b) the number of such practitioners serving specific population groups in that area. These groups include the medically indigent, Medicaid-eligible, poverty-level and migrant and seasonal farmworker populations. In general, these counties tend to be rural. (In addition, some census tracts of major metropolitan counties are designated because of the unmet health needs of specific population groups.)

In the last two decades, many health care programs have been put into effect in an attempt to relieve the maldistribution problem. Both the state and federal governments have participated in efforts such as Area Health Education Centers (AHEC's), increased emphasis on scholarships for certain medical specialties (the recipients of which show a higher probability of locating in rural areas); pre-screening of medical school candidates to aid in admitting those who are most likely to return to or locate in rural areas or areas of high need after earning their degrees and licensure; loan forgiveness programs in return for service for a prescribed period of time in a shortage area; rural preceptorships; community recruitment; and increased production of health professionals in an attempt to flood urban markets thus making rural practice locations more desirable.

Health Status of the Elderly

Persons over age 65 comprise slightly over eleven percent of the total American population. In Florida, residents over 65 represent more than 17 percent of the state's population, the highest percent of any state in the nation. It is projected that by the year 2000 the number of Americans over 65 will be ten times greater than in 1900, while the United States population in general will have merely tripled. The elderly are expected to comprise nearly 13 percent of the total population and over 20 percent of the population in Florida.

A 1981 survey reported that persons over 65 utilize medical care at a rate significantly greater than the general population. The average annual rate of physician visits was two per person for citizens under 65 and five per person for those over 65. Annual short stay hospital visits averaged one day for persons under 65 and four days for the elderly.

Compelling forces are drawing attention to the necessity for large-scale positive developments in the field of geriatrics. Because the elderly are high consumers of medical care and they represent a significant portion of the Florida population, the supply of and demand for physicians in Florida will be influenced by their presence. Additionally, the ability of physicians to care for the elderly will depend on the availability of academic geriatric preparation as well as continuing medical education.

The common societal definition of an elderly person in the United States refers to those who have reached age sixty-five. This definition has its origin in the development of the Social Security System. Sixty-five is not necessarily a benchmark of biological old age. Other definitions frequently refer to those persons over age sixty, while some include all persons over fifty-five. The term "geriatrics" most frequently refers to the branch of medicine concerned with the preventive, remedial and social aspects of illness in the elderly and to the clinical aspects of aging. The term gerontology is defined by some as a comprehensive study of the elderly.

As a result of substantial progress in medical care of the young and middle aged, a marked increase in the number of older persons in the American population is evident. Mortality rates of all ages are declining, and while not a measure of the health status of the living, mortality rates are used as one indicator of current progress in health care of the American population. In the decade between 1965 and 1975, the death rate for persons age 65 and over decreased by 11 percent. See Table 20. This decline is attributed almost entirely to decreases in the rates of death due to cardiovascular conditions.

A major demographic change visible in the twentieth century is the increase in the population which is over age 65. It is estimated that persons over 65 currently represent 11 percent of the American population as compared to four percent in 1900, and it is expected that this increase will continue. Projections indicate that by 2038, 25 percent of the American population will be over age 65. In addition, the composition of the group of citizens over 65 is changing. The proportion of 65-74 year olds in the elderly population is decreasing, while those over 75 and 85 are growing proportionally. It is projected that by the year 2000, 45 percent of the over 65 population will in fact be over 75, as compared to 38 percent in 1978. See Table 21.

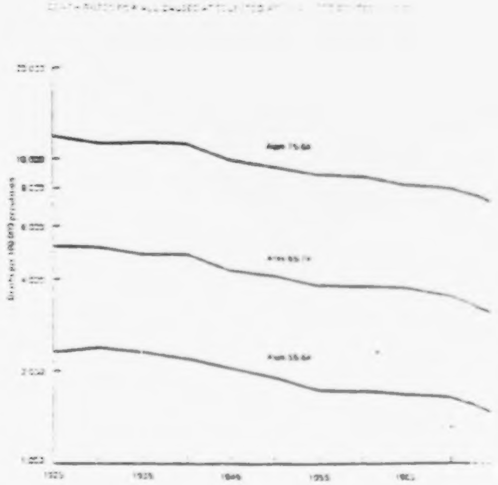
Historically, references to the elderly have alluded to a homogeneous group of persons with similar concerns and medical needs. With decreased mortality rates in increased number of persons over 75, the elderly have emerged, however, as a diverse group of persons representing two generations of citizens. Gerontologists have attempted to categorize these two groups with those between 60 and 75 as the "young old" and those over 75 as the "very old." The health care needs and concerns of a 65-year-old are quite different from those of persons fifteen years older at age 80.

As a group the elderly utilize health care to a greater extent than other adults. In 1977, health care expenditures of persons over 65 accounted for approximately 28 percent of the total spent by all Americans. See Table 22. With increased use and expenditures for health care by the elderly, issues concerning availability, quality and appropriateness of health services must be addressed. It is reported that increased specialization tends to compartmentalize health care which makes it unsuited for the care of those who have multiple, chronic medical problems.

At present, the majority of elderly persons do not reside in nursing homes. Those requiring such care represent only five percent of the total aging population. Elderly citizens who are over 75, however, do need and utilize medical care and services to a greater extent than those in the younger aging category. Nearly 60 percent of this group are limited by one or more chronic conditions which will not disappear.

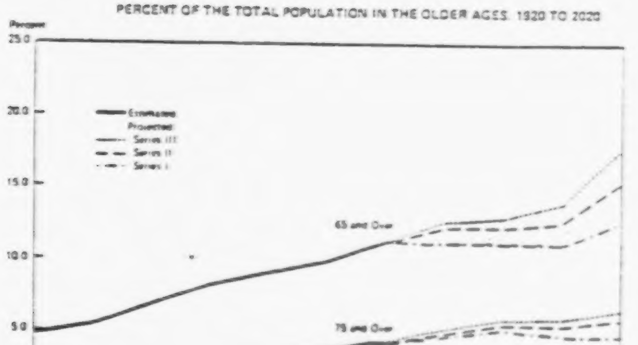
Gerontologists are reluctant to project increased demand for nursing home and hospital care in the future. Research and demonstration projects reveal

TABLE 20



Source: 1985-87 Florida State Health Plan (Preliminary), Volume II, Florida Department of Health and Rehabilitative Services.

TABLE 21



Note: Points are plotted for years ending in zero except for 1978.
Source: Table 2 and Current Population Reports, Series P-25, No. 311, 512, 614, 643, and 704

Source: 1985-87 Florida State Health Plan (Preliminary), Volume II, Florida Department of Health and Rehabilitative Services.

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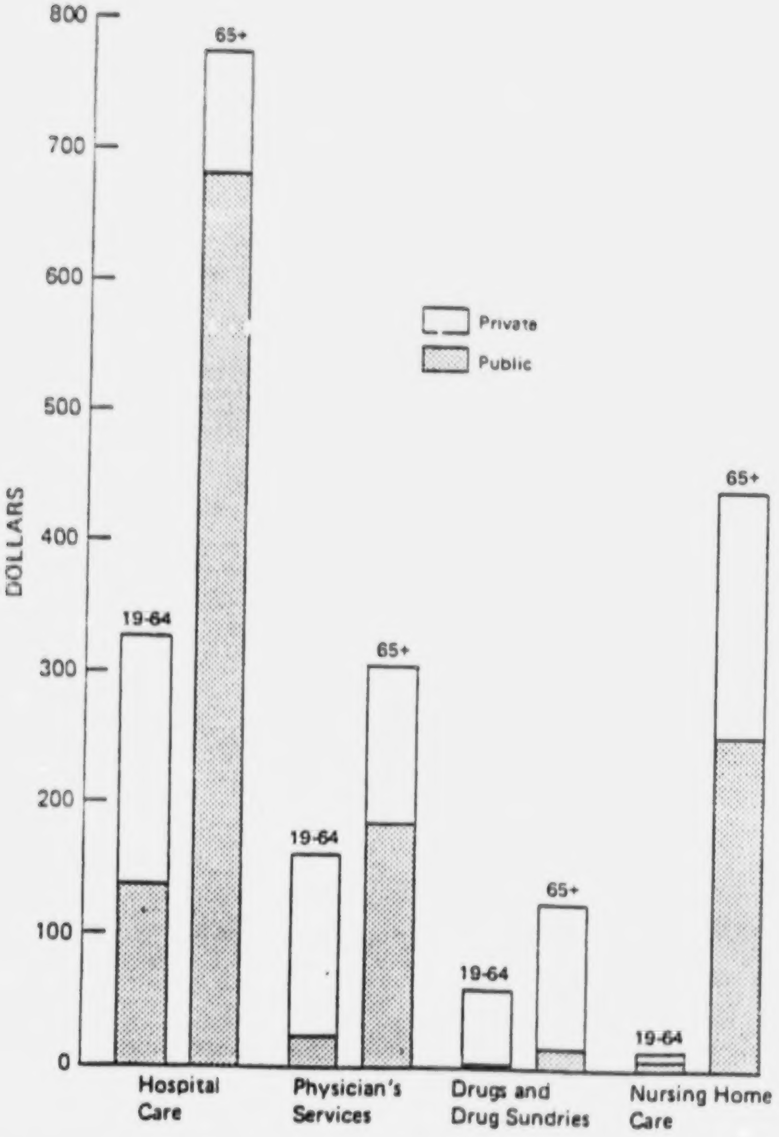
TABLE 22

PER CAPITA ADULT PERSONAL HEALTH CARE EXPENDITURES FOR SELECTED SERVICES (FY 1977)



SOURCE: Gibson RM, Fisher CR: Age Differences in Health Spending, Fiscal Year 1977. HCFA Health Note, December 1978.

alternative means of providing care for the very old and it is expected that these research efforts will continue. A second offsetting factor is the continued advancement in medical care and the increased healthiness of older persons in general.

V. THE SUPPLY OF AND DEMAND FOR PHYSICIANS IN FLORIDA

The issue of supply and demand for physicians has been at the center of considerable debate over the last 10 years. With the tremendous increases in the number of medical schools, questions began to be raised in the mid-seventies regarding a possible oversupply of physicians in the future when the graduates of these new schools would finish their residency training and enter the labor force. Concern centered on two possible ill effects of an oversupply of physicians: one, the diversion of state and federal educational funds from other areas of need, and, two, the fear that an oversupply of physicians would cause fees to increase or would encourage physicians to order possibly unnecessary procedures to maintain a certain income level.

In 1980, the federally sponsored Graduate Medical Education National Advisory Committee (GMENAC), the most extensive study ever undertaken on supply and demand for physicians, predicted that by 1990 there will be a surplus of 70,000 physicians in the country. The Health Resource Administration's Bureau of Health Professions also projected a surplus by 1990 but not of the magnitude of the GMENAC study.

Florida, as was the case for most southern states, has traditionally had an unfavorable physician-to-population ratio. However, over the last two decades, the south has seen a significant increase in the number of physicians. This was brought on by an increase in the number of medical schools, the number of residency programs and the in-migration of physicians from other states. Moreover, Florida, in particular, because of its attractive climate, has been one of the greatest beneficiaries of in-migration. Table 23 shows the growth in the number of physicians between 1970 and 1984. Including both M.D.'s and D.O.'s, the number of physicians has tripled in the fifteen years while the population has increased only 62 percent. The population per physician ratio has been sliced almost in half. Though the number of students to graduate from Florida medical schools has increased significantly during the same time period, this does not account for the large percentage of the new physicians. At present, Florida's medical schools graduate 343 M.D.'s annually, while the number of new physicians in Florida has averaged approximately 1400 per year since 1980. In addition, approximately 17,000 physicians who reside out-of-state hold active Florida licenses.

Compared to other states, Florida has fewer physicians per population than the U.S. average. As shown on Table 24, in 1981, Florida had 176 physicians per 100,000 population. The U.S. average was 185. Compared to the ten largest states, four states had a lower ratio than Florida and five a larger ratio. Compared to other southern states, Florida had considerably more physicians per population than the mean (176 per 100,000 compared to 144). Maryland alone has notably more than Florida. See Table 25.

While concerns about the overall number of physicians to deliver health care to the population have abated in the light of an anticipated surplus, concern continues about the geographic distribution of physicians and the specialty mix. The GMENAC study recognized the uneven geographic distribution of physicians and the possible surpluses of physicians in most of the specialty areas.

TABLE 23

PHYSICIANS IN FLORIDA
1970-1984

Year	No. of Physicians[a]	Population Per Physician
1970	8,117	837
1972	10,225	728
1974	12,130	680
1976	14,210	602
1978	16,240	545
1980	18,480	530
1982	21,300	486
1984	24,033	457

Source: Florida Department of Education, Office of Medical Education, 1984.

[a] NOTE: These figures include only Florida residents with active licenses. They include both D.O.'s and M.D.'s.

TABLE 24

ACTIVE PHYSICIANS - 1981
AND NUMBER PER 100,000 POPULATION

TEN LARGEST STATES

State	Total Physicians, 1981	Physicians Per 100,000 Population
California	55,041	230
Florida	17,673	176
Illinois	21,217	186
Pennsylvania	22,717	195
Michigan	14,785	161
New Jersey	14,273	193
New York	47,431	270
North Carolina	8,963	153
Ohio	17,750	165
Texas	22,247	153
United States	420,890	185

Source: U.S. Statistical Abstract, 1984

TABLE 25

ACTIVE PHYSICIANS - 1981 AND NUMBER PER 100,000 POPULATION

SOUTHERN STATES

State	Total Physicians, 1981	Physicians Per 100,000 Population
Alabama	4,957	127
Florida	17,673	176
Georgia	7,958	145
Kentucky	4,958	137
Louisiana	6,706	157
Maryland	11,378	270
Mississippi	2,720	108
North Carolina	8,963	153
South Carolina	4,189	135
Tennessee	7,280	158
Texas	22,247	153
Virginia	9,325	177
West Virginia	2,681	138
Southern States (mean)		144

Source: U.S. Statistical Abstract, 1984.

Geographic Distribution of Physicians

With increased urbanization of America since World War II, the general practice physicians who traditionally resided in rural areas are not currently being replaced by younger physicians. While there are some indications that the increase in the physician-to-population ratio has resulted in a greater penetration of rural areas and that physicians are seeking less crowded practice sites, significant shortages still occur. Currently in Florida 26 counties are designated as health manpower shortage areas by the federal government.

Specialty Distribution Within Florida

While there is no consensus on the desired specialty mix of physicians, both federal and state governments have suggested that around 50 percent of physicians should be in the primary care fields of family or general practice, internal medicine, pediatrics, and obstetrics and gynecology and that one-half of that 50 percent should be in family or general practice. At present in Florida approximately 40.6 percent (6339) of the practicing physicians are in primary care fields and 17.9 percent (2789) are in family or general practice. These figures are somewhat conservative because they do not include medical school faculty, residents, and federal or state employees.

Analysis of the production of physicians in the Florida medical schools indicates that the medical schools for which information is available (UF and USF) are graduating a relatively large number of physicians who choose primary care fields (51.9 percent and 66.5 percent respectively) but a low number of students who go into family practice (13.7 percent and 11.9 percent) respectively. See Table 26.

Supply and Demand Projections

Two studies to determine physician needs in Florida have been undertaken over the past year. The Office of Health Planning at HRS has let a STAR Grant to the University of Florida Center for Health Policy Research to predict physician manpower needs in Florida through 2005. This report has been released in draft form. Using two different scenarios for the future, the report predicts that Florida will experience an oversupply of physicians for the next twenty years. See Table 27.

The draft report also predicts the projected supply of physicians by specialty categories. According to these projections, the mix of specialties in Florida will continue to be skewed in favor of the specialists. Primary care will represent only 37 percent or 39 percent of the physicians in 1990 and 2000, respectively, significantly less than the ideal 50 percent. See Table 28.

Another study has been undertaken during this past year on projected supply and demand for family physicians in Florida. The Florida Academy of Family Physicians has contracted with a consultant from the College of Medicine at the University of Iowa to investigate the needs in Florida for family physicians. Though the report has not been released yet, an oral presentation was delivered. The consultant projected a shortfall of 150 family physicians over the next five years in Florida. The number may be a little inflated because it fails to account for medical services being offered by osteopathic general practitioners in the State. It also does not include the anticipated graduates of the

TABLE 26

SPECIALTY CHOICE OF FLORIDA MEDICAL SCHOOL GRADUATES

1975 - 1979

SCHOOL	NUMBER AND PERCENT OF PRIMARY CARE[a]	NUMBER AND PERCENT OF FAMILY PRACTICE	TOTAL PHYSICIANS
UF[b]	261 51.9%	69 13.7%	503 100.0%
PIMS	76 66.7%	16 14.1%	114 100.0%
USF	184 66.5%	33 11.9%	277 100.0%
UM	N/A	N/A	N/A

Source: Institutional Survey Conducted by Commission staff, 1984.

NOTE: [a] Primary Care includes family and general practice, internal medicine, obstetrics and gynecology, and pediatrics.

[b] UF numbers include PIMS students.

TABLE 27

PHYSICIAN SUPPLY AND REQUIREMENT
1990-2005

YEAR	SUPPLY	REQUIREMENTS MOST LIKELY	NEED-BASED
1990	21,451	18,599	24,620
1995	22,991	20,426	26,497
2000	24,188	23,009	29,249
2005	25,187	24,368	31,508

Source: Draft of Health Professions Supply and Requirements Project, Department of Health and Rehabilitation Services STAR Grant, 1984.

Southeastern College of Osteopathic Medicine. The first class will graduate in 1985. By the year 1989, close to one hundred students a year will be graduating from the school. These is no way of knowing, yet, how many will choose to do their internship in Florida or to set up practice in Florida. If they manifest the same behavior as the allopathic graduates, approximately 40 percent or 40 students a year will be added to the Florida physician supply, reducing the shortfall by one-third.

Projections on the contribution of Florida medical schools to the specialty mix in Florida indicates that approximately 59% of the graduates who remain in Florida of the three allopathic schools will choose to practice in the primary care fields. See Table 29. Furthermore, by the time the osteopathic school, SFCOM, is at full production, 89% of its graduates will be in primary care. See Table 30.

In summary, the preliminary findings of these reports indicate a surplus of physicians in Florida over the next twenty years but a continuing imbalance in the number of primary care providers and in the number of family physicians.

TABLE 28

SUPPLY OF PHYSICIANS BY SPECIALTY CATEGORY
1990 AND 2000

YEAR	CATEGORY	SUPPLY	PERCENT PRIMARY CARE
1990	Primary Care	8,060	36.6%
	Medical Specialty	2,179	
	Surgical Speciality	6,102	
	Other Specialty	5,110	
	Total	21,451	
2000	Primary Care	9,540	39.4%
	Medical Speciality	2,238	
	Surgical Speciality	6,470	
	Other Specialty	5,940	
	Total	24,188	

Source: Draft of Health Professions Supply and Requirements, Department of Health and Rehabilitation Services STAR Grant, 1984.

Osteopathic Physician Distribution and Specialty Selection

Historically, osteopathic physicians have entered general/family practice and located in small communities. In 1980, fifty percent of all the osteopathic physicians practicing in the U.S. were in communities with populations under 50,000. Thirty-nine percent of the osteopathic physicians were in communities with populations under 20,000.

The distribution of osteopathic physicians in Florida, however, does not follow the national norm. In Florida, the osteopathic physicians are heavily concentrated in three counties all of which are primarily urban or suburban. Fifty-seven percent of the osteopaths are in Dade (14 percent), Broward (22 percent), and Pinellas (21 percent). See Table 31.

Osteopaths in Florida are primarily in general or family practice. Sixty-four percent of Florida osteopathic physicians are in general or family practice.

TABLE 29

PROJECTED GRADUATES OF FLORIDA ALLOPATHIC MEDICAL SCHOOLS STARTING PRACTICE IN FLORIDA ANNUALLY

	YEARS			
	1984-1990		1991-2004	
SPECIALTY	NO.	%	NO.	%
Primary Care				
Family/General	21		21	
General Internal	23		21	
General Pediatrics	7		7	
Sub-Total	51	58.5%	49	55.1%
Medical Specialties	8	9.2%	10	11.2%
Surgical Specialties	16	18.4%	18	20.2%
Other Specialties	12	13.8%	12	13.5%
TOTAL	87	100.0%	89	100.0%

Source: Draft of Department of Health Professions Supply and Requirements, Department of Health and Rehabilitative Services, STAR Grant, 1984.

TABLE 30

PROJECTED GRADUATES OF THE FLORIDA OSTEOPATHIC MEDICAL SCHOOL STARTING PRACTICE IN FLORIDA

			YEARS			
	1988		1990		1991-2004	
SPECIALTY	NO.	%	NO.	%	NO.	%
Primary Care						
Family/General	15		34		43	
General Internal	1		2		2	
Sub-Total	16	88.9%	36	92.3%	45	91.8%
Medical Specialties	0		1	2.6%	1	2.0%
Surgical Specialties	1	5.6%	1	2.6%	2	4.1%
Other Specialities	1	5.6%	1	2.6%	1	2.0%
TOTAL	18	100.0%	39	100.0%	49	100.0%

Source: Draft of Department of Health Professions Supply and Requirements, Department of Health and Rehabilitative Services, STAR Grant, 1984.

TABLE 31

THE GEOGRAPHIC AND SPECIALTY DISTRIBUTION OF D.O.'S IN FLORIDA

County	Family/General Practice	Internal Medicine	Pediatrics	Obstetrics/ Gynecology	Medical Specialties	Anesthesiology	General Surgery	Ophthalmology	Orthopedic Surgery	Urology	Pathology	Psychiatry	Diagnostic Radiology	Total Number	Total Percent
Alachua	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Baker	1	-	-	-	-	-	-	-	-	-	-	-	-	1	0.001
Bay	3	-	-	-	-	1	-	-	-	-	-	-	-	4	0.005
Bradford	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Brevard	4	-	-	1	-	-	-	-	-	-	-	1	-	6	0.007
Broward	118	13	2	2	12	4	11	7	6	3	2	-	6	186	0.22
Calhoun	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Charlotte	1	-	-	-	-	-	-	-	-	-	-	-	-	1	0.001
Citrus	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Collier	4	-	-	-	-	-	-	-	-	-	-	-	-	4	0.005
Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Dade	81	8	-	1	6	3	4	1	1	3	1	5	5	119	0.14
DeSoto	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Dixie	1	-	-	-	-	-	-	-	-	-	-	-	-	1	0.001
Duval	19	-	1	2	1	2	2	1	1	-	-	-	2	31	0.037
Escambia	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Flagler	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Franklin	1	-	-	-	-	-	-	-	-	-	-	-	-	1	0.001
Gadsden	-		-	-	-	-	-	-	-	-	-	-	-	0	0.00
Gilchrist	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Glades	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Gulf	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Hamilton	-	-	-	-	-	-	-	-	-	-	-	-	1	1	0.001
Hardee	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Hendry	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Hernando	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Highlands	1	-	2	-	-	-	-	-	-	-	-	-	-	3	0.004
Hillsborough	34	2	1	2	1	3	4	1	-	-	1	1	1	51	0.06
Holmes	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Indian River	1	-	-	-	-	-	-	-	-	-	-	-	-	1	0.001
Jackson	1	-	-	-	-	-	-	-	-	-	-	-	-	1	0.001
Jefferson	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Lafayette	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Lake	1	1	-	-	1	-	-	-	-	-	-	-	-	3	0.004
Lee	13	1	-	-	1	-	-	-	-	1	-	-	-	16	0.02
Leon	1	-	-	-	-	-	-	-	-	-	-	-	-	1	0.001
Levy	1	-	-	-	-	-	-	-	-	-	-	-	-	1	0.001
Liberty	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Madison	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Manatee	1	-	-	-	-	-	-	-	-	-	1	-	-	2	0.002
Marion	1	-	-	-	-	-	-	-	-	-	-	-	1	2	0.002
Martin	1	-	-	1	-	-	-	-	-	-	-	-	-	2	0.002
Monroe	3	1	-	-	-	-	-	-	-	-	-	-	-	4	0.005
Nassau	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Okaloosa	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Okeechobee	3	-	-	-	-	-	-	-	-	-	-	-	-	3	0.004
Orange	26	4	1	2	1	2	2	-	1	2	1	-	3	45	0.05
Osceola	4	-	-	-	-	-	-	-	-	-	-	-	-	4	0.005
Palm Beach	40	4	-	-	3	1	2	1	2	1	-	1	1	56	0.067
Pasco	20	20	-	-	1	-	1	-	1	-	-	-	2	45	0.05
Pinellas	102	13	3	2	8	5	11	5	3	1	5	5	9	172	0.21
Polk	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Putnam	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
St. Johns	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
St. Lucie	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Santa Rosa	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Sarasota	12	1	-	-	-	-	-	-	-	-	-	-	-	13	0.02
Seminole	4	-	-	1	-	-	-	-	-	-	-	1	1	7	0.008
Sumter	2	-	-	-	-	-	-	-	-	-	-	-	-	2	0.002
Suwannee	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Taylor	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Union	1	-	-	-	-	-	-	-	-	-	-	-	-	1	0.001
Volusia	31	2	-	-	1	1	2	2	-	1	1	-	2	43	0.05
Wakulla	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Walton	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
Washington	-	-	-	-	-	-	-	-	-	-	-	-		0	0.00
Total Number	539	70	10	14	36	22	40	18	15	12	12	14	35	837	
Total Percent	0.64	0.08	0.01	0.02	0.04	0.03	0.05	0.02	0.02	0.01	0.01	0.02	0.04		100.00

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VI. ISSUES AND RECOMMENDATIONS

A. Medical Programs in Florida

Determinations of the number of medical schools and enrollment levels in a state should be based primarily on the need for practitioners to provide an adequate level of medical services to the citizens of the state. However, the state also has a responsibility to provide educational opportunities for its citizens.

Prior to 1950, Florida had no medical schools and Florida citizens who wished to go to medical school had to attend out of state. Florida was not unlike many southern states in this regard. Students went to several universities including Duke, Emory, Tulane and Vanderbilt. For a number of years, the Florida Legislature provided $1,500 per year for the education of 55 students. During the 1950s, the University of Miami and the University of Florida schools opened. The University of Miami, though an independent university, was recognized as having the first accredited medical school in Florida, and has received a per capita subsidy from the State from the beginning. The second public medical school opened in 1972 at the University of South Florida. In 1980, the State's first osteopathic school, an independent school, the Southeastern College of Osteopathic Medicine (SECOM), opened in North Miami Beach. SECOM has also received a state subsidy roughly based on capitation every year since it opened.

This rapid expansion in the number of schools over the last three decades, fueled by federal subsidies, was a phenomenon experienced in other states as well. Between 1963 and 1983, the number of medical schools grew from 87 to 127, a 46 percent increase. The number of first-year students doubled from 8,772 to 17,175. However, the rate of growth has slowed considerably over the last 10 years. There has been a net increase of only one school since 1979 and first-year enrollment has actually decreased slightly over the last three years.

Florida Public Medical Schools

The two public medical schools in Florida, the University of Florida at Gainesville and the University of South Florida at Tampa, educate approximately one-half of the Florida residents pursuing medical education in Florida.

The University of Florida College of Medicine. In 1949, the Florida Legislature authorized the creation and establishment of a medical school at the University of Florida but appropriated no monies. In 1953, the first appropriations were received and in fall of 1956, the University of Florida accepted its first class of students. The college received full accreditation by the American Medical Association and the Association of American Medical Colleges in 1960 and graduated its first class of 40 students. The College of Medicine is part of the J. Hillis Miller Health Center which also includes colleges of nursing, health related professions, dentistry, pharmacy and veterinary medicine and the Shands Teaching Hospital and Clinics. The college also has a close affiliation with the Veteran's Administration Medical Center adjacent to the campus. The University of Florida College of Medicine provides graduate medical education to over 400 residents and fellows through 21 approved residency programs in Shands Hospital and the Veteran's Administration Medical Center.

The University of Florida in agreement with the Jacksonville Health Educational Program (JHEP), is responsible for graduate medical education and for continuing medical education programs in the participating hospitals in Jacksonville. The college also has an academic affiliation with the Pensacola Educational Program (PEP) providing for strengthening graduate medical education and continuing education programs of several hospitals in that city.

At the undergraduate level, the college has an arrangement with Florida State University and with Florida A & M University under which students at the two institutions receive instruction in the pre-clinical medical sciences parallel to the first-year curriculum of the University of Florida College of Medicine. Students then transfer to the University of Florida medical campus in Gainesville for the remainder of the medical school curriculum.

The University of Florida established the Department of Community Health and Family Medicine in 1971, dedicated to the training of family physicians. Among other activities, the Department developed a model rural health clinic in the town of Mayo where 1,000 citizens and 2,000 rural inhabitants had been without a doctor for ten years, developed the State's first physician's assistant training program, and established three model family practice residency programs in Gainesville, Tallahassee and Jacksonville.

The University of Florida College of Medicine generated 24 million dollars in research grant support for the fiscal year July 1, 1983 to June 30, 1984. At the present time the College has 385 active research projects with a wide range of scientific interest and research investigation.

The aging studies are very important and combine the efforts of the Center for Gerontological Studies, and Climacteric Center relating to osteoporosis and aging in women, and the Geriatric Research Education Clinical Center. The University of Florida is one of five centers in the country funded for geriatric research through the establishment of such a center.

The University of Florida also conducts studies related to the treatment of urinary stone disease. The University of Florida is one of six such institutions in the nation and the only one in Florida funded for the operation of a lithotriptor to treat urinary stones by passing high frequency shock waves through the stones to create breaking and crumbling and to avoid the removal of the stones with surgery.

The university recently received a 1.5 million dollar grant for the study of Magnetic Resonance Imaging. With the use of magnetic imaging even cellular disease can be diagnosed and treated much earlier than is possible with traditional techniques of X-ray and CAT Scan.

The Clinical Research Center admits patients with specific illnesses to an area of the hospital for the benefit of observation and clinical research free of charge. The University of Florida is the only institution in

Florida and one of 75 such institutions and centers in the nation funded for this purpose by the National Institute of Health.

The University of Florida College of Medicine also implements many state mandated programs through the Department of Health and Rehabilitative Services and the Children's Medical Services, Diabetes Research Education and Treatment and Maternity and Infant Care Projects. The University also operates the North Florida Lions' Eye Bank.

The University of South Florida College of Medicine. The College of Medicine was authorized by the State Legislature in 1965. During the next three years, the University conducted an in-depth study relative to the site, cost and possible programs for the College. The first full-time Dean of the College of Medicine was appointed in October, 1969, and plans were developed for physical facilities, curriculum, and the recruitment of the medical faculty. The College of Medicine opened with the charter class in September, 1971.

The medical school is located on the campus of the University of South Florida. Facilities include student laboratories and classrooms, research laboratories, the Medical Library, administrative and department offices. Construction is underway on a Cancer and Chronic Disease Research and Treatment Center and a Shriners Hospital for Crippled Children to be located on the Medical Center Campus. A branch of the Southwest Florida Blood Bank has been constructed on campus, as well.

The University of South Florida Medical Clinics, located in the Medical Center adjacent to the College of Medicine, serve as the major area for student experience in ambulatory care. The facility covers 58,283 square feet, and is comprised of a wide variety of general, specialty and sub-specialty clinics, staffed by the Medical School faculty, residents, nurses and administrative personnel. The various regularly scheduled specialty and subspecialty clinics provide outpatient health care and are growing in volume and array of services. The provision of sophisticated medical equipment and facilities for medical ttention by the faculty offers the community and region a high standard of medical care research and teaching for medical students and patients.

In addition to the Medical Clinics, facilities include the Central Florida Lions' Eye Bank, Diabetes Center and Gerontology Center.

The Clinical instruction for the students of the College of Medicine are in large part based at Tampa General Hospital, the James A. Haley Veterans Administration Hospital, and All Children's Hospital in St. Petersburg. Tampa General Hospital is a 600-bed hospital fully accredited for intern and residence training. There are approved programs in Internal Medicine, Surgery, Obstetrics/Gynecology, Pediatrics, Otolaryngology, Urology, Radiology, and Pathology. The James A. Haley Veterans Administration Hospital is a 700-bed general medical and surgical hospital, including 150 beds for neuropsychiatric patient treatment. The hospital is located immediately across the street from the College of Medicine. It has 215 beds for medicine and 210 beds for surgery. Among the specialized medical services are both medical and surgical intensive care units, a 10-bed hemodialysis unit, a home dialysis program, a renal transplantation program, a cardiac catheterization unit and a cardiovascular surgery program. All Children's Hospital is a community hospital in St. Petersburg having beds for 100 patients, approximately one half medical, one half surgical, and a nursery to receive newborns. There are 16,000 outpatient visits per year. The hospital is a center for problems of child growth and other related endocrinological problems.

The four medical schools, including the University of Florida Program in Medical Sciences (PIMS) located on the Florida State University campus in Tallahassee, have a combined first-year enrollment of 449 for 1984-85. See Table 32. Tables 33 and 34 compare the number of medical schools in Florida to those in the ten largest states and to those in other southern states for 1982-83. Six of the ten largest states have more medical schools than Florida, three have the same number and one, New Jersey, has fewer. When Florida is compared to other southern states, only one state has more schools than Florida, Texas (8), three have the same number and eight have fewer.

When enrollment levels at Florida schools are compared to those of other states, including both public and independent medical schools, Florida is found to have the lowest level of enrollment for its population size, as shown in Tables 35 and 36.

In the U.S., the average first-year enrollment is 984 students per state for the 10 largest states and the mean number of students per 100,000 population is 7.98. Florida ranks considerably lower than the mean on both of these indicators and, moreover, lowest of any of the other ten largest states. Florida has a first-year enrollment of 426 students which equals 4.09 places per 100,000 population, one-half the U.S. average.

When compared to other southern states, Florida has close to the average number of enrollees but when one controls for the size of the state, Florida has the fewest positions per 100,000 population of any of the southern states.

159 Florida residents attended medical schools in other states in 1983; 125 students attended private schools and 34 attended public schools in other states. The schools that received the most Florida residents were Vanderbilt (11), Tulane (10), Emory (9), Bowman Gray (8), Uniformed University Services (8), Del Caribe (7), Howard (5) and Ponce (5). It is not known whether these students would have preferred to attend a school in Florida.

Another indicator of access is the total number of residents who enter all medical schools whether in state or out of the state. In 1983-84, a total of 489 Florida residents entered allopathic medical schools. When the size of the state's population is controlled for, Florida had 4.6 entering students per 100,000 population making Florida rank 46 among the 50 states. See Table 37. However, because of Florida's elderly population and some other demographic reasons, Florida does not have as many people of college-going age as would be expected for its size. Thus, Florida has a smaller pool of eligible students from which to draw medical school applicants. If one controls for the number of bachelor degree recipients, Florida's ranking for the number of state residents entering medical school per 100,000 population increases from 46 to 27. See Table 37.

TABLE 32

FIRST-YEAR ENROLLMENT AT FLORIDA MEDICAL SCHOOLS

1984-85

School	Enrollment	Florida Residents	Percentage of Total Florida Residents
UF	86	84	20.0
PIMS	32	32	7.6
USF	90	90	21.4
UM	138	133	31.6
SECOM	103	82	19.5
TOTAL	449	421	100%

Source: Institutional Survey conducted by Commission staff, 1984.

TABLE 33

THE TEN LARGEST STATES AND NUMBER OF MEDICAL SCHOOLS

1982 - 83

STATE	NUMBER OF ALLOPATHIC SCHOOLS	NUMBER OF OSTEOPATHIC SCHOOLS	TOTAL NUMBER OF SCHOOLS
California	8	1	9
Florida	3	1	4
Illinois	7	1	8
Michigan	3	1	4
New Jersey	2	1	3
New York	12	1	13
North Carolina	4	0	4
Ohio	6	1	7
Pennsylvania	7	1	8
Texas	7	1	8

Source: Journal of the American Medical Association, Vol. 252, No. 12, 1984 and American Association of Colleges of Osteopathic Medicine, Annual Report, 1984.

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TABLE 34

SOUTHERN STATES AND THE NUMBER OF MEDICAL SCHOOLS

1983 - 84

STATE	NUMBER OF ALLOPATHIC SCHOOLS	NUMBER OF OSTEOPATHIC SCHOOLS	TOTAL NUMBER OF SCHOOLS
Alabama	2	0	2
Florida	3	1	4
Georgia	4	0	4
Kentucky	2	0	2
Louisiana	3	0	3
Maryland	3	0	3
Mississippi	1	0	1
North Carolina	4	0	4
South Carolina	2	0	2
Tennessee	4	0	4
Texas	7	1	8
Virginia	3	0	3
West Virginia	2	1	3

Source: Journal of the American Medical Association, Vol. 252, No. 12, 1984. American Association of Colleges of Osteopathic Medicine, Annual Report, 1984.

TABLE 35

FIRST-YEAR ENROLLMENTS AND RATE PER 100,000 POPULATION ALLOPATHIC AND OSTEOPATHIC MEDICAL SCHOOLS

Ten Largest States

STATE	83-84 FIRST YEAR ENROLLMENT	ENROLLMENT PER 100,000 POPULATION
California	1110	4.49
Florida	426	4.09
Illinois	1210	10.57
Michigan	720	7.90
New Jersey	372	5.0
New York	1859	10.53
North Carolina	460	7.64
Ohio	1083	10.04
Pennsylvania	1315	11.08
Texas	1293	8.46
MEAN (Ten Largest States)	984	7.98
UNITED STATES	18,756	8.10

Source: Journal of the American Medical Association, Vol. 252, No. 12, 1984 and American Association of Colleges of Osteopathic Medicine, Annual Report, 1984.

TABLE 36

FIRST-YEAR ENROLLMENTS AND RATE PER 100,000 POPULATION ALLOPATHIC AND OSTEOPATHIC MEDICAL SCHOOLS

Southern States

STATE	83-84 FIRST YEAR TOTAL ENROLLMENT	TOTAL ENROLLMENT PER 100,000 POPULATION
Alabama	220	5.57
Florida	426	4.09
Georgia	359	6.36
Kentucky	226	6.16
Louisiana	435	9.97
Maryland	437	10.24
Mississippi	139	5.44
North Carolina	460	7.64
South Carolina	231	7.21
Tennessee	458	9.84
Texas	1293	8.46
Virginia	414	7.53
West Virginia	196	10.06
MEAN (Southern States)	407	7.58
UNITED STATES	18,756	8.10

Source: Journal of the American Medical Association, Vol. 252, No. 12, 1984 and American Association of Colleges of Osteopathic Medicine, Annual Report, 1984.

TABLE 37

—Ranking of States by Number of State Residents Entering Medical School per 100,000 Population, Number of Entering Students per 1,000 Bachelor's Degrees Awarded, and Per Capita Income

State	Entering Students*		Population in 1,000†		Entering Students per 100,000 Population		Estimated Number of Bachelor's Degrees Awarded in 1980-1981‡		Entering Students per 1,000 Bachelor's Degrees Awarded		Per Capita Income§	
	No.	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Rank	Amount	Rank
Alabama	238	21	3,958	22	6.0	29	16,534	20	14.4	31	8,581	48
Alaska‖	15	52	480	51	3.1	49	465	51	32.3	2	15,200	1
Arizona	137	36	2,964	28	4.6	46	10,826	30	12.6	39	10,201	32
Arkansas	153	33	2,328	33	6.6	22	6,955	37	22.0	7	8,332	50
California	1,622	2	25,174	1	6.4	27	81,848	2	19.8	13	12,543	5
Colorado	185	28	3,138	26	5.9	32	14,677	23	12.6	39	11,776	12
Connecticut	227	23	3,137	27	7.2	17	13,312	25	17.0	25	13,687	3
Delaware	32	48	605	48	5.3	40	3,194	47	10.0	47	11,798	11
District of Columbia	42	44	623	47	6.7	20	6,807	38	6.2	49	14,347	2
Florida	489	9	10,680	7	4.6	46	29,988	9	16.3	27	10,875	22
Georgia	336	15	5,732	13	5.9	32	17,014	18	19.7	14	9,514	37
Hawaii	70	40	1,024	39	6.8	19	3,212	46	21.8	9	11,602	15
Idaho‖	38	47	989	40	3.8	48	2,759	48	13.8	34	9,259	40
Illinois	890	4	11,487	6	7.7	11	44,470	5	20.0	12	12,162	8
Indiana	329	16	6,187	10	5.3	40	24,834	10	13.2	36	10,109	34
Iowa	165	32	2,906	29	5.7	35	14,441	24	11.4	43	10,532	27
Kansas	191	27	2,425	32	7.9	10	11,672	27	16.4	26	11,448	16
Kentucky	224	24	3,715	23	6.0	29	11,509	28	19.5	15	8,861	44
Louisiana	342	14	4,437	18	7.7	11	14,821	22	23.1	4	10,083	35
Maine‖	30	49	1,146	38	2.6	50	4,817	40	6.2	49	9,033	41
Maryland	348	13	4,305	19	8.1	6	15,901	21	21.9	8	12,194	7
Massachusetts	426	10	5,767	12	7.4	14	38,792	7	11.0	44	11,921	10
Michigan	603	7	9,069	8	6.6	22	38,647	8	15.6	30	11,052	19
Minnesota	359	12	4,144	21	8.7	5	19,392	16	18.5	20	11,082	18
Mississippi	170	29	2,586	31	6.6	22	8,982	33	18.9	18	7,792	51
Missouri	277	20	4,970	15	5.6	37	22,041	14	12.6	39	10,175	33
Montana‖	42	44	817	44	5.1	43	3,815	43	11.0	44	9,750	36
Nebraska	169	30	1,598	36	10.6	2	7,404	35	22.8	5	10,489	29
Nevada	52	43	892	43	5.8	34	1,477	49	35.2	1	11,748	13
New Hampshire	21	51	959	41	2.2	51	6,025	39	3.5	51	10,710	28
New Jersey	598	8	7,467	9	8.0	8	24,474	11	24.4	3	13,027	4
New Mexico	80	38	1,400	37	5.7	35	4,543	41	17.6	23	8,997	43
New York	1,890	1	17,667	2	10.7	1	83,777	1	22.6	6	12,328	6
North Carolina	326	17	6,082	11	5.4	38	23,712	12	13.7	35	9,032	42
North Dakota	65	41	680	46	9.6	4	3,795	45	17.1	24	10,476	30
Ohio	878	5	10,745	6	8.1	6	41,308	6	21.2	10	10,783	23
Oklahoma	169	30	3,298	24	5.1	43	12,818	26	13.2	36	10,776	24
Oregon	140	34	2,668	30	5.2	42	9,783	31	14.3	32	10,392	31
Pennsylvania	871	6	11,895	4	7.3	15	64,446	3	16.0	29	10,943	21
Puerto Rico	237	22	...	...	...	...	...	...	...	...	...	...
Rhode Island	60	42	955	42	6.3	28	7,263	36	8.3	48	10,730	25
South Carolina	218	25	3,264	25	6.7	20	11,358	29	19.2	16	8,456	49
South Dakota	72	39	700	45	10.3	3	3,868	43	18.6	19	9,506	38
Tennessee	280	19	4,686	17	6.0	29	17,409	17	16.1	28	8,849	46
Texas	1,019	3	15,722	3	6.5	26	53,589	4	19.0	17	11,352	17
Utah	122	37	1,620	35	7.5	13	9,336	32	13.1	38	8,733	47
Vermont	42	44	526	49	8.0	8	3,971	42	10.6	46	9,446	39
Virginia	403	11	5,550	14	7.3	15	22,078	13	18.2	21	11,003	20
Washington	205	26	4,300	20	4.8	45	16,648	19	12.3	42	11,635	14
West Virginia	139	35	1,965	34	7.1	18	7,720	34	18.0	22	8,856	45
Wisconsin	313	18	4,752	16	6.6	22	22,026	15	14.2	33	10,497	26
Wyoming‖	28	50	514	50	5.4	38	1,320	50	21.2	10	11,970	9
Total, av	16,375	...	234,696	...	7.0	...	931,871	...	17.6	...	11,056	...

*Students for whom origin is known, 1983-1984.

†Population estimates as of July 1, 1983, US Census Bureau.

‡*The Condition of Education*, 1983 edition, National Center for Education Statistics, Department of Education.

§1982 per capita income, US Department of Commerce.

‖States in which there are no medical schools.

Source: Journal of the American Medical Association, Vol. 252, No. 12, 1984.

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While upon first consideration it may appear that the statistics discussed above would warrant additional access for Florida residents, judgments on the adequacy of a state's provision of access must be tempered by a number of considerations. Public policy regarding access to education is substantially different in areas of professional preparation than of undergraduate education. Medical education is a narrow and highly-specific field of training and few skills acquired are transferable to other occupations or endeavors. It is also a very expensive form of education, requiring long years of training, expensive equipment and a faculty that commands high salaries. A state's responsibility to provide equitable access for residents wishing to pursue medical education must be balanced with the state's need for physicians and competing state priorities for funding.

In Florida's case, given the facts that there is no anticipated shortage of physicians in Florida due to the high levels of immigration of physicians into the State and that Florida's comparative interstate rankings in terms of access are somewhat skewed by Florida's elderly population, the present level of access offered by the existing four medical schools appears sufficient.

The most recent supply and demand projections for Florida indicate that the combination of medical school graduates, residency program graduates and in-migration of physicians from other states is more than sufficient to provide the needed medical manpower for Florida up to the year 2005. The following table predicts physician manpower requirements based on two different approaches.

TABLE 38

PROJECTED SUPPLY OF AND REQUIREMENTS FOR PHYSICIANS
IN FLORIDA

1990 - 2005

YEAR	SUPPLY	REQUIREMENTS MOST LIKELY	 NEED-BASED
1990	21,451	18,599	24,620
1995	22,991	20,426	26,497
2000	24,188	23,009	29,249
2005	25,187	24,368	31,508

Source: Draft of Health Professions Supply and Requirements Project, Department of Health and Rehabilitation Services STAR Grant, 1984.

According to the predictions, Florida's supply will be more than adequate to meet the requirements.

A perfect match between supply and requirements while not very likely, may not even be desirable. Having a supply of physicians slightly higher than the projected requirements, but not excessively high, has two advantages. One, it assures an adequate supply even if requirements are higher than projected while still helping to avoid the added health care expenses that some research has attributed to physician oversupply. Based on these requirement projections, there are no strong reasons to change the present level of training of medical doctors in Florida.

1. Pending significant changes in projected supply and demand, the current number of medical schools in Florida at their current levels of enrollment is sufficient to meet the state's responsibility to provide access to medical education for its citizens and to meet the State's needs for adequate physician manpower for the next two decades. No additional medical schools should be established in Florida unless the rate of in-migration of physicians drops markedly. If need is found, priority should be given to expanding enrollments in existing programs. The large federal subsidies available in the sixties and seventies for medical school expansion are no longer available and the creation of a new school would be extremely costly to the State.

The five first-year programs in Florida are distributed somewhat evenly around the State. Each of the five planning regions has one program except for East Central Florida. The most densely populated region of Florida, the South, has two of the larger programs. See Table 39.

2. The geographic distribution of the Florida medical schools is sufficient to meet the current and projected needs of Florida for medical education.

Funding of Medical Education in Florida

The State of Florida supports two public medical schools and two independent medical schools. The independent schools are funded on a capitation basis which allows for very clear recognition of state policy and interest. The public schools are funded by the appropriation of a lump sum to the University of Florida Health Center and the University of South Florida Medical Center. Though the funds are appropriated by distinct budget issues, the funding process does not distinguish the amount of dollars to be spent for the specific programs within the centers. The University of Florida has six colleges in the Health Center and the University of South Florida has three colleges in the Medical Center. Lump sum budgeting for academic health centers is fairly common in other states and is a recognition on the part of legislatures of the diverse mission of academic health centers in which the training of health professionals is just one component, others being research and patient service. The funding process allows institutions considerable flexibility in how they allocate their funds. It also makes it difficult to determine legislative intent or to track the path of state appropriations. The Commission does not recommend that an enrollment-driven formula be implemented. To the

TABLE 39

FIRST-YEAR ENROLLMENT BY REGION

1984-85

Region	Enrollment	Percent of Total Enrollment	Percent of State Population
Panhandle	32	8%	8.8%
Crown	86	20%	13.0%
East Central	0	0%	15.7%
West Central	91	21%	27.1%
South	240	54%	35.4%
State	450	100%	100%

Source: Institutional Survey Compiled by Commission staff.

contrary, the Master Plan calls for less reliance on enrollment and more dependence on programmatic issues in budgeting decisions. However, this reliance on programmatic issues demands stringent review of the programs and the development of appropriate program review criteria. The Board of Regents will be undertaking a systemwide review of the public medical schools in Florida in 1985-86. As recommended in the Master Plan and as required in State Board rule, the review process should define the important indicators of quality for medical education and the results of the review should be reflected in budget request. This review will be an opportunity for state policymakers and institutions to define more sharply the role and scope of the two medical schools and to evaluate the appropriateness of current funding to meet the distinct needs of the two schools.

3. The 1985-86 Board of Regents review of health professions education in Florida should develop indicators of quality for evaluating the medical schools, more sharply define the distinct missions of the two schools and link the program review results to future budget requests.

The State medical schools are presently reviewed by the Liaison Committee on Medical Education in order to maintain their accreditation. The Board's program review should avoid being redundant with the national accrediting body and focus on state concerns and priorities.

C. Public Support for Independent Medical Schools

The Master Plan for Florida Postsecondary Education underscores the important role of the independent sector in maintaining diversity and choice in postsecondary education. The independent sector provides additional options for students and faculty and many educational and financial advantages may accrue to the State by the effective inclusion of independent institutions as part of the total array of postsecondary education resources available to Florida residents. Financial support of independent programs, such as through state contracts with independent postsecondary institutions, can be an economical option in that normally the State does not have to support fully the program. By taking advantage of the substantial investment made by the independent institution, the State can procure additional programs for a lesser investment than it would have made in developing and financing a program in its entirety in the public sector. Also, the diversity of resources made available and the resulting enhancement of student access and choice meet important state goals.

The Master Plan also affirmed that though the policy and program decisions of independent institutions should remain the responsibility of their Boards of Trustees, independent institutions which receive state funds are responsible for the proper fiscal accounting of all state funds received and for fulfilling all contractual agreements. The Master Plan also underscored the importance of cooperative planning by both the public and independent sectors and recommended that the private sector consider joining its public counterparts in statewide reviews of all programs.

4. The State of Florida should continue to recognize the role of the independent sector as an effective resource for meeting the state's needs for physicians and for providing Florida residents with access to medical education.

The State of Florida has two independent medical schools both of which receive state funds on a per capita basis. However the history, maturity, mission and scope of the two schools are very different.

The University of Miami School of Medicine

The University of Miami School of Medicine was developed in the early 1950s in direct response to the Florida Legislature's statement of need for the establishment of a medical school in Florida. The school opened its doors in 1952 and received full accreditation very soon thereafter. It has since been continuously recognized in Florida Statutes as the first accredited medical school in Florida.

Even today the University of Miami is the only accredited medical school in southeastern Florida and is an integral part of both the State and the region's medical education system. The Southeast Florida Plan designates it as the institution responsible for medical education. The array of health care facilities and expertise clustered around the University of Miami/Jackson Memorial Medical Center forms one of the largest medical center complexes in the country. Located in the northwest section of Miami, the Medical Center consists of the University of Miami School of Medicine, Jackson Memorial Hospital, the Veterans Administration Medical

Center, the Bascom Palmer Eye Institute/Anne Bates Leach Eye Hospital, the William L. McKnight Visual Research Institute, the Mailman Center for Child Development, the Louis Calder Memorial Library, the University of Miami Hospital and Clinics, the Parkinson Institute, the Medical Training and Simulation Laboratory, and other health related institutions. The Medical Center also serves the disadvantaged of Dade County and the veterans of South Florida. In addition to being responsible for patient services at the Medical Center, the College of Medicine also participates in a number of specialized programs offering health care in a variety of disciplines in order to improve the health resources of South Florida.

The University of Miami/Jackson Memorial Medical Center is the seventh largest medical center in the nation, and the School of Medicine along with Jackson Hospital is involved with the study of new drugs and treatments for a variety of disorders.

Of particular interest are some of those projects that impact directly on Florida citizens. The recent discovery of AIDS has stimulated a group of physician-researchers at the University to become involved in research into the causes and possible cures for this disorder in their patients. They have the support of a growing number of basic scientists at the School who have interests relating to immunology and such disorders in the immune system as Acquired Immune Disorder Syndrome (AIDS). Florida's Comprehensive Cancer Center with its research and patient care arms, supports the efforts, not only for some AIDS victims but for all those who suffer from cancer.

The University of Miami has an affiliation with the Juvenile Diabetes Research Foundation and the Parkinson Foundation which illustrates the advantages to be gained from a close linkage between patient care and research, both clinical and basic. For example, the recent demonstration of a diabetes cure in dogs emerged from advances in basic immunology. The Parkinson's clinic delivers care and testing of the latest drugs with a potential for aiding Parkinsonian patients.

The University of Miami School of Medicine is conducting basic research that defines the brain cells and molecules which are targets of Alzheimer's disease.

The Division of Behavioral Sciences of the Department of Pediatrics conducts basic and applied research in diagnosis and intervention of handicapping conditions in children, including developmental abnormalities, behavioral and communication disorders, and medical conditions which place children at risk for developmental delay.

The School of Medicine at the University of Miami received $34 million for support of its reseach and sponsored programs last fiscal year. There are more than 400 active research projects at the School.

The University of Miami School of Medicine has always accepted a high percentage of Florida residents. In 1983-84, 88 percent of its entering class were Florida residents, which is the same percentage accepted by the two public medical schools. The University of Miami educates approximately 32 percent of the Florida residents attending medical school in Florida.

The state subsidy per student has increased significantly over the three decades of state support. Table 40 details the level of state support as well as total cost per student and tuition levels for the last ten years. As indicated, the relative percentage of total costs and state subsidies has increased at the same rate over the last ten years, essentially doubling. The 1984 legislative appropriation of $16,943 per student represents approximately 43 percent of the total cost per student. With the exception of $100,000 appropriated to the school in 1984 for a special minority outreach program, the school does not receive support from the state for either operating expenses or capital outlay. The program is administered through the Department of Education's Medical Education Program Office. In order to receive the funds, the medical school is required to certify the number of Florida residents enrolled. There are, however, no other reporting requirements.

Tuition at the University of Miami School of Medicine has tripled over the last 10 years. However, its current level of $10,500 is less than the $11,711 average for independent medical schools nationwide.

The significant contribution that the independent sector can make to a state's postsecondary education structure is nowhere better evinced than in the role the University of Miami School of Medicine has played in Florida over the last three decades. It responded quickly to the state's need for medical education as recognized in its statutory designation as the first accredited medical school. It has continued to provide access to approximately one-third of the Florida residents attending medical school in Florida. The constellation of medical services centered around the University of Miami/Jackson Memorial Medical Center services the southeastern portion of the state with special programs and advanced tertiary care services. The Medical Center is also the primary source of indigent medical services for Dade County, and a significant resource for indigent care for many of the surrounding counties.

5. The State of Florida should continue its subsidy of Florida residents enrolled at the University of Miami School of Medicine.

However, the critical shortages of physicians that existed in Florida at the time of the establishment of the University of Miami School of Medicine and that continued to exist throughout most of the sixties and seventies has dissipated. Though there is considerable uncertainty over the supply of physicians until the year 2000, the country may be facing a surplus for the first time in its history. State support for medical education at both independent and public medical schools needs to be reassessed every five years over the next few decades to ascertain the need for support and the level at which the support should be extended.

6. The need for continued support at present levels at the University of Miami as well as the public medical schools should be reassessed every five years as the impact of an unprecedented supply of physicians on access to medical services is revealed. No precipitous actions should be taken that would damage the school's financial viability in recognition of the length and depth of the school's service to the State over the last thirty years.

TABLE 40

TUITION AND STATE SUPPORT AS RELATED TO COST PER STUDENT

University of Miami

Year	Cost per Student	Tuition as Percent of Cost	State Support as Percent of Cost
1975-76	$19,536	$ 3,100 15.9%	$ 7,681 39.4%
1977-78	25,000	5,000 20.0%	9,000 36.0%
1981-82	38,330	7,540 19.7%	12,088 31.6%
1983-84	40,000	9,540 23.9%	15,374 38.5%
Ten-Year Percent Increases	205%	338%	221%

Source: The University of Miami, 1984.

7. In order to keep tuition at levels not too distant from those at the State's public medical schools, any future reduction in support should be designed to reduce the number of students receiving support, not the amount of dollars per student.

The University of Miami School of Medicine is one of the few programs in the independent sector which receives state monies outside of the State Board of Education contracting process. It is the only independent college program specifically recognized in Florida Statutes which underscores the significant role played by the school in meeting critical state needs. Up until the 1980s, the production of new physicians was an appropriate single policy objective relative to this program. However, with the changing environment of physician manpower in Florida and in the nation, other issues besides enrollment level must be brought into state policy considerations. Questions such as specialty choice, location of practice in underserved areas, minority participation and others become of equal if not greater interest to the State. The University of Miami's contribution to statewide priorities such as these should play a role in consideration of continuing state support.

8. The University of Miami School of Medicine should report annually to the State on the school's contributions to state policy priorities in medical education. The issues to be addressed should be developed by the Department of Education's Office of Medical Education Programs and should include information on admission standards, retention rates, specialty choice, location of practice, and minority participation.

The 1983 Legislature directed all public postsecondary education programs to be reviewed statewide every five years. The Board of Regents has scheduled a review of its health professions programs for 1985-86. This review will include the medical schools. In order to maintain integrated and coordinated delivery of medical education in Florida, the review should include recognition of the University of Miami's contribution to medical education in the State.

One specific coordinated activity that should be undertaken as a part of the program review is a review of cost accounting procedures that would allow the University of Miami and the two public medical schools to produce cost per student data that are compatible. A procedure was developed by the Board of Regents in the late seventies but it has not been updated recently. Such a procedure would assist both the State Board of Education and the Legislature in developing policy regarding medical education in Florida.

9. The Board of Regents 1985-86 program review related to medical education should reflect the critical role played by the University of Miami in this area and should recognize its potential role in any improvements or adjustments recommended for the public medical schools. The Board, in cooperation with the University of Miami, should develop a cost accounting procedure capable of producing comparable data on the costs of medical education for all three medical schools.

Cost data that the University of Miami has been using indicate that the State has been subsidizing each Florida resident between 32 and 39 percent of total costs. See Table 40. The increases in state support, however, have not been systematic or based on a constant relationship. If future increases were tied to state support of the public medical schools, the state would be recognizing legitimate increases in medical education costs and establishing an equitable basis for the use of the funds. Because the State does not appropriate funds directly to the medical schools, but rather to the Health and Medical Centers, the expenditure analysis might be the appropriate tool for determining the percentage change. An average from the two public schools should be used.

10. The state subsidy to the University of Miami School of Medicine should be indexed to the state support of the public medical schools.

As indicated in Table 40, as costs of medical education have been rising, tuition has increased over the last ten years from $3,100 to $9,540. Tuition has also been increasing as a percent of total costs (from 15.9 percent to 23.9 percent). The Commission has recommended that in the public sector tuition be indexed to total costs of education and that the percentages remain relatively stable. This assures that both the State and the student continue to shoulder an equitable share of the burden of financing the education even as costs rise. The same principle should be applied to the financing of the state-subsidized University of Miami School of Medicine. The state subsidy should help assure that tuition will not rise excessively, thus limiting student choice. In 1983-84, tuition represented 23.9 percent of costs and the state subsidy 38.5 percent of costs according to the University of Miami. Upon verification of these figures by an independent accounting firm, the relative percentages could be used as a basis for relating further state subsidy and tuition to cost.

11. The percentage that tuition and state subsidy represent of costs at the University of Miami should be verified by an independent accounting firm and, in the future, the state subsidy and tuition at the University of Miami for Florida residents should not exceed the percentage of costs they currently represent.

The Southeastern College of Osteopathic Medicine

The Southeastern College of Osteopathic Medicine (SECOM) was chartered in 1979 and granted provisional accreditation by the American Osteopathic Association. Its first 40 students were accepted in September 1981. It is the only osteopathic college in the Southeast. Prior to the establishment of SECOM, of the 13 states with the highest osteopathic patient population, only Arizona and Florida had no osteopathic medical school. In November 1982, SECOM was granted full license by the State Board of Independent Colleges and Universities.

SECOM is located in North Miami Beach and consists of administration and educational buildings. A third building is to be built next year. The primary affiliated teaching hospital is Southeastern Medical Center, a 224-bed hospital, located adjacent to the College. Although there is a strong educational affiliation between the two institutions, there is neither administrative nor fiscal interrelationship. In addition to this primary center, SECOM has official affiliations with seven other osteopathic hospitals throughout the state of Florida. They are:

Humana Hospital of the Palm Beaches
Humana Hospital of South Broward
Doctors General Hospital
Metropolitan General Hospital
Orlando General Hospital
Sun Coast Hospital
Westchester General Hospital

These hospitals provide 1539 training beds for SECOM. Several other osteopathic hospitals in Florida are under consideration for rotations when their teaching programs have received full accreditation from the American Osteopathic Association.

The College also has affiliation with Greynolds Park Nursing Home. As part of its commitment to the underserved, SECOM has developed a Family Health Center in Opa Locka and provides students to several migrant labor health centers operated by the Florida Community Health Centers in the Okeechobee area. SECOM also supplies students and support to migrant health centers in Immokalee and LaBelle. SECOM maintains an affiliation with the Palm Beach County Health Department and an underserved area health center in Fort Lauderdale.

SECOM admissions policy states that first priority is to be given to Florida residents and second priority to the residents of the southeastern United States. Florida residents represent the majority of students at SECOM as shown in the following table.

TABLE 41

FLORIDA RESIDENTS AS A PERCENTAGE OF FIRST-YEAR STUDENTS

YEAR	TOTAL FIRST-YEAR STUDENTS	FLORIDA STUDENTS	PERCENTAGE OF CLASS
1981	40	32	75%
1982	60	50	85%
1983	80	62	76%
1984	103	85	83%

Source: SECOM, 1984.

Of all Florida residents attending medical school in Florida, SECOM is currently educating approximately 15 percent.

Student Demand. As is the case with most American medical schools, there is significant student demand at SECOM. As shown in the following table, SECOM is presently enrolling less than 10 percent of all applicants and about one-third of the Florida applicants.

TABLE 42

NUMBER OF APPLICANTS AND APPLICANT/ACCEPTANCE RATIO NATIONALLY AND FOR FLORIDA

CLASS	TOTAL STUDENTS	TOTAL APPLICANTS	PERCENT APPLICANTS ACCEPTED	PERCENT FLORIDA APPLICANTS ACCEPTED
1985	40	1207	3%	21.7%
1986	60	1103	5%	32.0%
1987	80	1018	8%	36.3%
1988	103	1171	9%	54.5%

Source: SECOM, 1984.

Curriculum. SECOM's four-year curriculum is designed to prepare the student for the general practice of osteopathic medicine. Specialties are not encouraged at the undergraduate level. The first two and one-half years of instruction include development of a foundation in basic sciences and didactic studies in clinical sciences. Beginning with the sixth semester, emphasis shifts to clinical training. After 17 months of clinical service, students return to campus for an eighth semester consisting of basic and clinical science correlations, professional and personal preparation for internship, residency and practice and some on-going clinical experience.

As a portion of the required didactic and clinical training, every student is required to take 18 hours in each of the following.

Geriatrics

Geriatrics is a required 18-hour course. In addition, a one month rotation at a geriatric facility is required. The facility used for this rotation is a teaching nursing home, one of only a few in the country. SECOM is one of the first schools to involve itself in this area. The administration of Graynolds Park Nursing Home cooperates with the college in the program. Patients in need of hospitalization are transferred from the nursing home to Southeastern Medical Center, providing continuity of care for the patient and continuity of education for the student.

Rural Medicine

Rural medicine is a required 18-hour course, covering aspects of health and medical care indigenous to rural areas. It is taught by an osteopathic physician with 27 years of experience in rural practice. In addition all students must serve at least one month in a rural clinic or practitioner's office. Clinical rotations are offered in health manpower shortage areas such as migrant camps, rural clinics or rural private practices. In specific, SECOM is affiliated with the Florida Community Health Centers, an organization which operates rural clinics in the Lake Okeechobee area and with two additional independent rural clinics.

Minority Medicine

SECOM's 18-hour required course in minority medicine is primarily a study of cross-cultural medicine. It encompasses those aspects of the culture of various minority groups which will aid or interfere with the doctor in treating such patients. The college believes it highly important for students to study about and understand the beliefs and cultural backgrounds of Hispanics, Blacks, Haitians and other minority groups having a large population in Florida. Clinical rotations are undertaken in public health clinics and urban ambulatory sites which predominantly serve minority or poor populations.

Nutrition

Many medical schools in the United States do not require a course in nutrition and some do not teach it at all. Some, however, view nutrition as an important component in the training of the physician. SECOM requires an 18-hour course in nutrition. Nutrition has become of increasing importance in health care as life style is determined to be a larger factor in overall health status.

Cooperative Program with FIU

The school has recently embarked on an affiliation with Florida International University in Miami to offer a combined seven-year program offering the student a Bachelor of Science degree and a Doctor of Osteopathy degree. Students will have the opportunity to save one year in time and tuition. Plus, upon admission to FIU, students have a reserved position in the first-year class contingent upon maintaining academic and other standards of performance.

State Subsidy

SECOM has received annual appropriations from the State of Florida for the four years it has been accepting students. As indicated in Table 43, the appropriation amounts have been loosely based on the number of Florida residents and have increased as the school has filled in all four years.

TABLE 43

STATE APPROPRIATIONS PER STUDENT
1981 - 84

YEAR	APPROPRIATION	NO. OF FLORIDA RESIDENTS	APPROPRIATION PER FLORIDA RESIDENT	APPROPRIATION AS A PERCENT OF TOTAL COSTS
1981	$100,000	32	$3125	NA
1982	200,000	78	2564	NA
1983	400,000	144	2778	NA
1984	800,000	222	3604	21.3%

Source: Legislative Staff and SECOM, 1984.

The 1984 legislative appropriation has not been fully released yet. The Governor has authorized release of $400,000 awaiting further analysis by his staff of the state's role in subsidizing SECOM.

According to SECOM, current costs per student total about $17,000. The 1984-85 appropriation of $3,607 represents 21.3 percent of costs.

The school has indicated to Commission staff that its full complement will be 100 students per class of which 80 would be Florida residents. It intends to continue to request a state appropriation of $4,000 per Florida resident. If 80 Florida students are enrolled in each of the four classes, the requested amount would be $1.28 million. At the full complement of students, SECOM would be providing medical education to approximately 20 percent of the Florida residents pursuing medical education in Florida. At present, the Department of Education administers the appropriations through the office of the Director of the Medical Education Program. There is no statutory reference to SECOM.

The State of Florida is entering a new era in regard to physician manpower. For the first time in recent history, it is estimated that Florida will have an adequate number of physicians and may be facing a surplus especially in certain specialties. Though Florida has a low number of medical schools and medical school positions relative to its population, it is the beneficiary of extensive in-migration of physicians from other states. Furthermore, the full impact of the recent increase in enrollment at the University of South Florida has yet to be fully realized. From an overall point of view, an increased production of physicians within the State is not of priority.

However, there are areas of need within the State by geographic distribution and specialty distribution. Medical service to populations in rural areas and minority populations in urban and rural areas is still lacking. The curricular emphasis at SECOM on rural health, minority health care and geriatrics address specific state priorities. The clinical experience required of students in rural, low income and geriatric settings provides exposure for all the students to service opportunities in these settings.

Furthermore, osteopathic schools have traditionally produced a high percentage of family practitoners, one of the reasons being the delay in the development of hospital-based specialties. The draft of the 1984 Health Professions Supply and Requirements Project, using national statistics, estimates that when SECOM has a full complement of students, 87.8 percent of its graduates will elect family practice as their specialty. This compares to 23.6 percent for the other Florida medical schools. Two-thirds of the Florida medical school graduates who will practice in Florida as family practitioners will be SECOM graduates. See Table 44.

Since SECOM is not yet fully accredited and has yet to graduate its first class, the Commission cannot definitively evaluate the school's appropriate place in the State's medical education planning and financing structure. However, indications are that the school is offering an alternative approach to educating medical students and preparing physicians for practice, an approach that speaks directly to certain state priorities.

TABLE 44

PROJECTIONS OF NUMBER AND PERCENT OF FLORIDA MEDICAL SCHOOL GRADUATES BY TYPE OF SCHOOL WHO CHOOSE FAMILY PRACTICE IN FLORIDA

1991

TYPE OF SCHOOL	TOTAL GRADUATES	FAMILY PRACTICE	PERCENT FAMILY PRACTICE
Osteopathic	49	43	87.8
Allopathic	89	21	23.6
Total Allopathic	138	64	

Source: Draft of health Professions Supply and Requirements Project, Department of Health and Rehabilitative Services STAR Grant, 1984.

12. The State should continue current subsidies to SECOM but not increase the current level of appropriations per student for Florida residents enrolled in SECOM until the institution is fully accredited.

13. Responsibility for annual evaluation of state support for SECOM should be assigned to the Postsecondary Education Planning Commission in keeping with its responsibility for advising the State Board of Education on state contracts with independent institutions.

14. As part of its contracting responsibilities, the Commission should undertake a full review of the SECOM medical school program with the aid of consultants expert in the area of medical education. Any increase in state support recommended for the 1985-86 fiscal year as a result of the initial contract review should be contingent on the institution receiving full accreditation by the American Osteopathic Association. If the Commission finds justification for a state contract, the annual reviews should be subject to the same criteria used to evaluate all programs with which the Commission recommends contracting. Data on specialty selection and practice location of SECOM graduates will become critical areas of review as students from the institution begin graduating and enter practice.

C. Tuition and Student Financial Assistance for Medical Education

The Master Plan for Florida Postsecondary Education laid out two basic principles in the development of state policies for tuition. One, tuition levels should be indexed to state general revenue appropriations with the student being required to bear an equitable portion of the total costs. Second, low tuition is not the preferred policy to provide financial assistance because it is not targeted to individual student need.

Tuition for Graduate and Professional Education

Consideration of tuition levels for students in graduate or first professional degree programs must recognize the differing benefits of advanced education to the individual and society. The most comprehensive study on tuition policies to date, the 1973 Carnegie Commission study, affirmed the changing relative benefits to society and to the individual in more advanced education. At the graduate and professional degree level, the Carnegie Commission's findings indicated that the benefit to the individual relative to the benefit to the state increased substantially, especially in terms of greater potential lifetime earnings.

Tuition and Costs of Education

Tuition for medical schools has traditionally been low and the costs of medical education relatively high. In fact, medical school has the highest instructional cost per student with the sole exception of dental education. Furthermore, the medical profession has been one of the most highly compensated professions in the last few decades. Physician salaries are well within the top one percent of all incomes in the country. Though there is considerable diversity in income depending on specialty, average income places physicians in the highest of income-earning categories.

On the other hand, medical education is the single longest training period of any profession. Medical school, itself, beginning after a baccalaureate degree has been awarded, is four years in length. In addition, graduate medical education, or residency, is now considered an essential part of physician preparation. Residency programs are three to four years in length for most specialties and for students pursuing subspecialties may extend two or three additional years. Residents are compensated for their work in hospitals and receive stipends of around $18,000 a year. Medical students must forego potential earnings for a number of years. In fact, the extended length of time before a medical student starts receiving a return on investment is frequently cited as one reason for the marked decline in the number of medical school applicants over the last seven to eight years. Students pursuing programs in engineering or business may realize a substantial return on their investment in a notably shorter time period.

Tuition Levels Nationally

Tuition levels for medical schools show considerable range. In 1985-86, the University of Texas at Houston will charge $300 for state residents, while Georgetown University, a private medical school, will charge $20,000. Tuition has been rising over the last few years. Table 45 shows a 16

TABLE 45

U.S. Medical Schools

Tuition, Student Fees, and All Other Expenses, First Year Class

1982-83 and 1983-84

	1982-83			1983-84		
	RANGE	MEDIAN	AVERAGE	RANGE	MEDIAN	AVERAGE
Public Medical Schools*						
Tuition						
Residents	$ 0-6,681	$2,723	$2,697	$ 0-7,296	$3,174	$3,127
Nonresidents	900-26,337	6,300	6,198	900-26,337	7,000	6,903
Student Fees	0-3,767	193	426	0-3,652	198	446
All Other Expenses[1]	3,000-10,783	6,388	6,465	3,000-10,783	6,890	6,750
Private Medical Schools						
Tuition**	3,500-19,000	10,350	10,721	3,700-18,750	11,863	11,711
Student Fees	0-1,640	300	342	0-1,780	300	344
All Other Expenses[1]	2,400-11,613	7,208	7,147	2,400-13,200	7,067	7,446

*Excludes Uniformed Services University of the Health Sciences which does not charge tuition or student fees.

**The following private medical schools report a lower tuition for residents of the state: Baylor, Ponce, Mayo, Pittsburgh, Temple, Tulane, Eastern Virginia, the Medical College of Wisconsin, and del Caribe. The higher tuition estimate for these schools was used for this table.

[1] Includes room and board, books and supplies, transportation, etc.

Source: American Association of Colleges of Medicine, 1984.

percent increase in just one year from 1982-83 to 1983-84 for public schools and a nine percent increase for private schools.

The latest year for which an average cost per undergraduate student is available is 1981-82. Table 46 indicates that in 1981-82 the average cost per undergraduate student was $27,750. Using 1981-82 tuition averages (Table 47), it is calculated that tuition accounts for 8.4 percent of the cost of education at public schools and 33.5 percent at private schools.

Tuition Levels in Florida

Tuition at the two public medical schools in Florida is shown in Table 47. Effective Fall 1984, tuition is $2360 at Florida public schools. Tables 47 and 48 compare Florida tuition to that of other southern states and the ten largest states. Florida tuition is slightly more than the southern mean of $2,251 and significantly less than the mean of the ten largest states at $3,368. Tuition at the two private medical schools is considerably higher. Tuition at the University of Miami is $10,500 and it is $11,500 at the Southeastern College of Osteopathic Medicine.

Using data from and in consultation with the Board of Regents staff, an estimate of the costs of instruction for the two public medical schools was developed. The cost per FTE in the medical school was added to a pro rata share of the three other instructionally-related budget issues for the health and medical centers - libraries, physical plant and administrative services. The teaching hospital and allied clinics component was not included. This analysis indicated that the average cost per student for the two institutions is $31,513.88. (An average was used because the two schools separately show a wide discrepancy in the per student cost which to some degree is a function of the different accounting procedures, role and scope, and physician billing practices of the two schools.) The figure of $31,513.88 is similar to national figures. At present levels, tuition accounts for approximately eight percent of the instructional costs.

Student Financial Aid

Another important guideline in the Master Plan on developing tuition policy is that tuition policy and financial aid policy must be compatible and in consort work to achieve state goals of student access and sound financial backing for postsecondary education.

Federal financial aid for medical students has traditionally been widely accessible and offered under very favorable conditions because of the strong national need for additional physicians. However, federal policies have shifted over the last two administrations resulting in fewer grants and more high interest loans. Concerns over restricted federal resources and the prediction of an impending surplus of physicians have contributed to changes. Additionally, there has been a philosophical shift in policy regarding the student's responsibility to shoulder a large percentage of costs particularly in light of estimated earnings potential. Concurrently, pressures on state budgets and on operating budgets of independent schools have resulted in increasing tuition rates. The combination of more costly financial aid and higher tuition rates have substantially increased student

TABLE 46

AVERAGE AND RANGE OF ANNUAL EDUCATION COSTS PER UNDERGRADUATE MEDICAL STUDENT IN 1972-73 COMPARED TO ADJUSTED COSTS for 1979, 1980, 1981

	Average	Range
1972-73	$12,650	$6,900-18,650
1979-80*	23,650	12,900-34,900
1980-81*	25,900	14,150-38,200
1981-82*	27,750	21,100-40,950

Note: Dollars are rounded to the nearest $50.

*Calculations based on the June 30 Urban Consumer Price Indexes for the fiscal years involved 1967=100; 1973=132.4; 1980=247.6; 1981=271.3; and 1982=290.6.

Sources: U.S. Labor Department; Bureau of Labor Statistics; and National Academy of Sciences, Report of a Study of Costs of Education in the Health Professions, Parts I and II, U.S. Department of Health, Education, and Welfare, January 1974.

TABLE 47
RESIDENT TUITION
FIRST-YEAR MEDICAL STUDENTS, 1985-86
PUBLIC MEDICAL SCHOOLS, SOUTHERN STATES

STATE	SCHOOL	RESIDENT TUITION
Alabama	University of Alabama South Alabama	$3,600
Florida	University of Florida	$2,360
	University of South Florida	$2,360
Georgia	Medical College of Georgia	$2,898
Kentucky	University of Kentucky	$3,538
	Louisville	$3,191
Louisiana	Louisiana, New Orleans	$2,200
	Louisiana, Shreveport	$2,200
Maryland	University of Maryland	$5,445
	Uniformed Services, Univ. Bethesda	(NA)
Mississippi	University of Mississippi	$3,038
North Carolina	East Carolina	$1,503
	University of North Carolina	$ 680
South Carolina	Medical Univ. of South Carolina	$3,300
	University of South Carolina	$3,000
Tennessee	East Tennessee State	$3,552
	University of Tennessee	$4,016
Texas	Texas A&M	$ 300
	Texas Tech	$ 300
	University of Texas - Galveston	$ 400
	University of Texas - Houston	$ 300
	University of Texas - San Antonio	$ 400
Virginia	Medical College of Virginia	$4,750
	University of Virginia	$5,357
West Virginia	Marshall	$1,880
	University of West Virginia	$2,020
MEAN		$2,251
MEAN (excluding Texas)		$3,017

Source: Journal of the American Medical Association, Vol. 252, No. 12, 1984 and the State University System of Florida, 1984.

TABLE 48
RESIDENT TUITION
FIRST-YEAR MEDICAL STUDENTS, 1985-86
PUBLIC MEDICAL SCHOOLS, TEN LARGEST STATES

STATE	SCHOOL	RESIDENT TUITION
California	University of Calif. at Davis	$1,698
	University of Calif. at Irvine	$1,783
	U.C.L.A.	(NA)
	University of Calif. at San Diego	$1,800
	University of Calif. at San Francisco	(NA)
Florida	University of Florida	$2,360
	University of S. Florida	$2,360
Illinois	University of Illinois	$1,048
	University of So. Illinois	$3,963
Massachusetts	University of Massachusetts	$5,170
Michigan	University of Michigan	$5,700
	Michigan State	$4,694
	Wayne State	$5,190
New Jersey	New Jersey Medical	$6,825
	Rutgers	$6,825
New York	S.U.N.Y. - Buffalo	$5,550
	Downstate	$5,550
	Stony Brook	$5,550
	Upstate	$5,550
North Carolina	East Carolina	$1,503
	University of North Carolina	$ 680
Ohio	Wright State	$5,400
	Ohio State	$3,900
	University of Cincinnati	$5,760
	Medical College of Ohio	$5,400
	Northeastern Ohio	$3,750
Texas	Texas A&M	$ 300
	Texas Tech	$ 300
	Univ. of Texas - Galveston	$ 400
	Univ. of Texas - Houston	$ 300
	Univ. of Texas - San Antonio	$ 400
MEAN		$3,368
MEAN (excluding Texas)		$4,026

Source: Journal of the American Medical Association, Vol. 252, No. 12, 1984, and the State University System of Florida, 1984.

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indebtedness. According to the American Association of Medical Colleges, the mean educational debts of senior students increased 18.9 percent from $20,116 to $23,914 between 1981-82 and 1982-83. This came on the heels of a 11.1 percent growth the previous year. The number of students reporting educational debts of $30,000 or more increased 44.4 percent from 1,504 to 2,172 representing 13.5 percent of the graduating class in 1982-83.

The Journal of the American Medical Association reports in the September 1984 issue that in 1982-83 the total amount of financial assistance obtained by medical students declined $24.5 million, or 5.5 percent, from the previous year. The drop was the only reduction on record since data were first collected in 1954. This reduction was in sharp contrast to substantial increases in recent years. Also, the number of students receiving financial aid dropped from 78 percent to 67 percent of total enrollment. However, the total number of students applying for financial aid increased by 13.1 percent and the total amount of unmet need increased by 65.1 percent. One explanation advanced in the Journal for the decrease in the amount of assistance and the number of recipients is that due to an increased appreciation of the implications of debt, students have become more prudent in borrowing or have turned to other sources of financial aid outside of the normal mechanisms handled through medical schools. Table 49 illustrates the amount of loans and scholarships administered in 1981-82 and 1982-83.

State Aid

Florida does not at present offer any special financial aid specifically for medical education. The State University System does have a Grant-in-Aid program for graduate students but it is designed for minority students. It is discussed in the section on minority participation in medical education.

Loans and Service Commitments

Over the last decade, the majority of states have developed service-conditional education support programs which provide financial assistance to students and allow them to cancel the financial obligation to the state by serving in areas of designated physician shortage. The most common provisions require that a recipient provide one year of service for each year of support received.

An extensive review of state service payback programs for physicians covering academic year 1979-80 was undertaken by the Department of Health and Human Services. In an article entitled "Service-Conditional Medical Student Aid Programs; The Experiences of the States" in the August 1982 Journal of Medical Education, the different programs were analyzed. The results of this review and a number of other less exhaustive studies revealed serious concerns on the part of some program administrators that the programs were not meeting the stated objective of providing physician manpower to underserved areas. A number of barriers as to reaching that objective have been identified:

(1) Nearly all programs had provisions for recipients to buy out of the obligation in lieu of providing service. Though the programs were

TABLE 49

—Sources of Loans and Scholarship Funds

	1981-1982*			1982-1983†		
	Amount, $	**No.**	**Average Amount, $**	**Amount, $**	**No.**	**Average Amount, $**
Not administered by schools						
Scholarships						
Armed Forces Health Professions Scholarships	44,809,664	3,263	13,733	48,840,030	3,171	15,402
National Health Service Corps	38,720,764	2,882	13,435	23,474,403	1,556	15,086
National Medical Fellowships	912,300	766	1,191	682,610	730	935
Other (with service commitment)	10,959,568	2,196	4,990	9,719,366	1,824	5,329
Subtotal	95,402,296	. . .	. . .	82,716,409	. . .	. . .
Loans						
ALAS/PLUS‡	2,004,325	752	2,665	11,256,451	3,930	2,864
Guaranteed student loans	214,923,028	43,809	4,905	178,536,448	37,624	4,745
Health education assistance loans	33,166,499	4,701	7,055	50,436,252	6,554	7,695
Other loans	9,095,526	3,678	2,472	5,986,290	2,476	2,418
Subtotal	259,189,378	. . .	. . .	246,215,441	. . .	. . .
College work-study	1,482,911	1,274	1,163	1,401,763	1,092	1,284
Total	**356,074,585**	. . .	. . .	**330,333,613**	. . .	. . .
Administered by schools						
Scholarships						
Medical Scientist Training Program	7,726,685	710	10,882	7,910,675	662	11,950
Exceptional financial need	4,899,584	418	11,721	2,448,881	172	14,238
School funds	27,180,407	11,418	2,380	30,759,501	13,297	2,313
Other scholarships	9,062,014	6,248	1,450	9,174,466	6,283	1,460
Subtotal	48,868,690	. . .	. . .	50,293,503	. . .	. . .
Loans						
Health professions loans	24,347,510	10,245	2,376	22,949,645	9,551	2,403
Guaranteed student loans	13,775,154	2,605	5,287	4,709,462	984	4,786
National direct student loans	12,737,413	7,216	1,765	14,909,736	8,057	1,851
School funds	9,624,748	6,283	1,531	16,822,076	7,495	2,244
Subtotal	60,484,823	. . .	. . .	59,390,919	. . .	. . .
Total	**109,353,513**	. . .	. . .	**109,684,422**	. . .	. . .
Grand Total	**465,428,098**	. . .	. . .	**440,018,035**	. . .	. . .

Source: Journal of American Medical Association, September 28, 1984.

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intended to provide incentives for service, the low interest rates coupled with the then higher market interest rates and high physician salaries resulted in the provisions not being sufficiently stringent to provide this incentive. Many students who were interviewed stated that they generally dismissed the consequences of a future service commitment from their thinking at the time of application. They stated that their primary motivation for participation in the program was financial.

(2) Less than half of the programs restricted support to students who indicated that they intended to pursue a primary care specialty, despite the fact that it is very unlikely that a physician trained in a hospital-based specialty would choose to locate in a sparsely settled rural area.

(3) Some programs either did not require participants to serve in shortage areas or did not provide well-thought out criteria for defining such areas.

(4) Some programs did not have procedures for placement and did not provide direction for site selection or development.

(5) No state subsidized the salary or the expenses of the practitioner; thus, there were no economic incentives to locate in poor or marginal areas.

(6) Most programs did not keep thorough data on the program placements.

(7) Most programs were administered through departments of education rather than health service departments thus placing emphasis on the financial aid segment of the program rather than the service commitment.

For a state-level program to be successful, the shortcomings of the previous programs must be addressed. One, the goals of the program must be clearly enunciated and, two, strategies tightly focused on those goals must be developed.

A survey of the four medical schools in Florida indicates that sufficient need and non-need financial aid is available to qualified students. None of the four schools reported that any medical student applicants were not enrolling or were withdrawing because of a lack of financial resources. However, the schools did report that a number of their students received considerable amounts of aid from grants and from low and high interest loans resulting in high indebtedness for some students. Table 50 indicates the average amount of indebtedness for medical students upon graduation from USF, UM, UF and SECOM.

TABLE 50
STUDENT INDEBTEDNESS IN FLORIDA MEDICAL SCHOOLS

MEDICAL SCHOOL	YEAR	AVERAGE INDEBTEDNESS UPON GRADUATION
UF	1984	$28,106[a]
USF	1984	22,000
UM	1984	45,000
SECOM	1985	38,000

Source: Institutional Survey conducted by Commission Staff, 1984.

[a] These figures are based only on students who received financial aid through the College of Medicine and includes the Guaranteed Student Loan.

The Commission is concerned about the increasing indebtedness of medical students and about any negative effects on access for students from minority and disadvantaged families. The Commission also acknowledges the need for a tuition policy based on an equitable sharing of costs between the student and the State. The 1984 Commission report on dental education noted the same concerns and called for an increase in the tuition and fees at the one public dental school in Florida. To address these concerns, the Commission proposes the following. One, a service-conditional loan forgiveness should be established that would allow students to borrow the funds at market interest rates to pay state tuition and to have the loan forgiven in return for practicing in areas of critical physician manpower shortages in the State. This would help decrease indebtedness for medical school graduates and help meet a critical state need for physicians in certain areas. Secondly, tuition for public medical schools should be increased to represent 15 percent of costs. This would bring Florida closer in line with tuition levels at other public medical schools in other large states, while also bringing the percentage of costs borne by medical students closer to that of undergraduate students, which is estimated at about 19 percent in the State University System. At present, medical school tuition only represents about eight percent of the instructional costs. Thirteen percent would be approximately $4,000 per year. This tuition increase would also help reduce the growing gap between public and independent tuition levels. At present, the University of Miami tuition is $10,500.

The program would need to be carefully developed in conjunction with the Department of HRS to assure that the physicians are placed in areas of need and that proper assistance is provided to help the physician develop an economically viable practice.

Two observations need to be made at this juncture. One, the Commission recognizes that such a program is not the total solution to the problem of medically underserved populations in the State. As recognized in the Commission's 1984 report on dental education, many subpopulations are not receiving adequate services not because of a physician shortage but because of a lack of economic resources to support a practice. This is true in rural and urban areas where some subpopulations do not have sufficient resources to pay for services and in rural areas where the geographic diffusion is so acute that a provider cannot draw from a large enough pool of patients to support a practice. The Commission also notes the natural reluctance on the part of some physicians to establish practice in areas which may be perceived to be lacking in professional, cultural, commercial, social, educational or economic resources. This problem can be solved only by the State deciding to subsidize directly medical services at a level higher than the present rates or deciding ~~to su~~bsidize directly physician practices.

Secondly, even if students choose to pay back their loans rather than commit to service in underserved areas, the program should not be considered unsuccessful. If the interest rates are at market levels, the State has not lost revenue and has offered students a choice in financing their tuition.

15. The State should establish a service-conditional loan forgiveness program for medical students which would enable them to borrow at market interest rates the funds necessary to pay tuition. The Office of Student Financial Assistance should meet with the private financial institutions in Florida to develop specific policies on the most effective approach to implementing such a program. Upon completion of medical education, the student would have the option of repaying the loan or agreeing to practice in a designated underserved area. The program should include the following provisions:

    (a) the program would be restricted to students who indicate a desire to pursue a primary care specialty;

    (b) the State would repay the loan if the student agreed to practice in a designated underserved area;

    (c) the State would repay one year of the loan for each year of service in a designated area; and

    (d) the Department of Health and Rehabilitative Services would be responsible for designation of appropriate sites, for eliciting civic and local governmental support for the health provider, and for liaison with county public health units in instances where they are designated as appropriate practice sites.

Tuition and fees presently represent about eight percent of the costs of instruction. The percentage should be increased to 13 percent and present cost of instruction data indicate that 13 percent would be approximately $4,000 per year. Awaiting improved cost of instruction data as called for in recommendation number six, tuition would be set at $4,000 to be phased in over a two year period. Implementation of the 13 percent should be consistent with phasing in of the Commission's recommendation on dental education. For Fall 1985, the tuition and fees would be raised to $3,000. For Fall 1986, the tuition and fees would be raised to $4,000.

16. Tuition and fees at the public medical schools in Florida should be increased to represent approximately 13 percent of the costs of instruction.

The Commission continues to be interested in professional school tuition and may wish to continue the deliberations on this issue in the future. One issue that it will address as it completes the final biennium of the Comprehensive Health Professions Plan is whether high cost health professions programs such as medicine, dentistry and veterinary medicine should have the same tuition charge or program-specific tuition charges.

D. Minority Participation in Medical Education

In the late sixties and early seventies, substantial progress was made in increasing the absolute numbers and percentages of minorities attending medical schools. The number of minorities receiving baccalaureate degrees increased substantially as did the overall enrollments in medical schools. The number of blacks, for example, in medical schools more than doubled between 1969 and 1982, increasing from 440 to 912. The percentage of black enrollment reached a peak in the mid-seventies and has been declining or showing only slight gains since then. At present, 5.6 percent of medical students are black, 5.0 percent Hispanic and 5.1 percent Asian. See Table 51.

Minority Enrollment in Florida Medical Schools

In Florida, minority enrollments for blacks and Hispanics track the national percentages closely. Blacks represent 5.1 percent and Hispanics 6.0 percent. However, these percentages fall below the group's percentage of the Florida population which is 13.8 percent for blacks and 8.8 percent for Hispanics. The absolute numbers are also very small, 23 blacks and 27 Hispanics. See Table 52. The number of blacks and Hispanics enrolled over the last five years has shown slight increases but the percentages have not risen, except for Asians. See Table 53. The percentage of blacks and Hispanics that graduate as a percentage of all graduates has increased steadily and is higher than their enrollment percentages. This would indicate that attrition may not be a problem for minorities once admitted. See Table 54 and 55. The number of alien students is quite small. At the two public schools, only one or two students per year are alien. See Table 56.

TABLE 56

ENROLLMENT OF ALIENS IN PUBLIC MEDICAL SCHOOLS IN FLORIDA

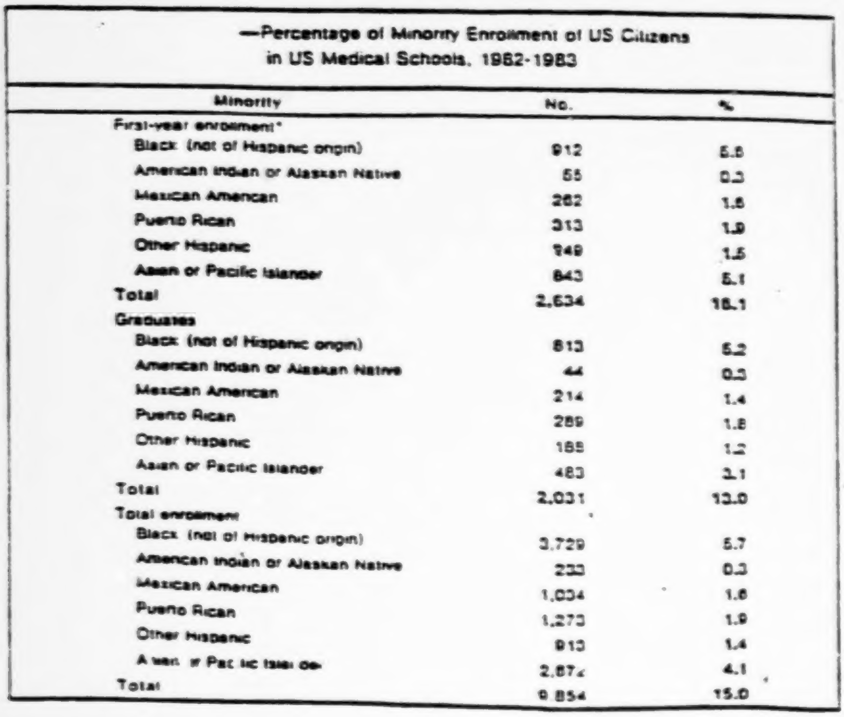
			YEAR		
SCHOOL	1979	1980	1981	1982	1983
UF	1	1	0	1	2
USF	0	0	0	0	0
TOTAL	1	1	0	1	2

Source: SUS Student Data Course File, 1984.

Minority Medical Schools

Until the late 1960's and early 1970's the vast majority of black health professionals were educated at predominantly black health professions

TABLE 51



—Percentage of Minority Enrollment of US Citizens in US Medical Schools, 1982-1983

Minority	No.	%
First-year enrollment*		
Black (not of Hispanic origin)	912	5.6
American Indian or Alaskan Native	55	0.3
Mexican American	262	1.6
Puerto Rican	313	1.9
Other Hispanic	249	1.5
Asian or Pacific Islander	843	5.1
Total	2,634	16.1
Graduates		
Black (not of Hispanic origin)	813	5.2
American Indian or Alaskan Native	44	0.3
Mexican American	214	1.4
Puerto Rican	289	1.8
Other Hispanic	185	1.2
Asian or Pacific Islander	483	3.1
Total	2,031	13.0
Total enrollment		
Black (not of Hispanic origin)	3,729	5.7
American Indian or Alaskan Native	233	0.3
Mexican American	1,034	1.6
Puerto Rican	1,273	1.9
Other Hispanic	913	1.4
Asian or Pacific Islander	2,674	4.1
Total	9,854	15.0

Source: Journal of American Medical Association, Volume 250, No. 12, 1983.

TABLE 52

FIRST-YEAR ENROLLMENT AT FLORIDA MEDICAL SCHOOLS BY RACE OR ETHNICITY - 1984-85

Medical School	White	Black	Hispanic	Asian	American Indian	TOTAL
UF	68 79.1%	10 11.6%	4 4.7%	4 4.7%	0 0	86
PIMS	32 100%	0 0	0 0	0 0	0 0	32
USF	83 91.2%	4 4.4%	3 3.3%	1 1.1%	0 0	91
UM	113 81.9%	8 5.8%	12 8.7%	5 3.6%	0 0	138
SECOM	92 89.3%	1 1.0%	8 7.8%	1 1.0%	1 1.0%	103
TOTAL	388 86.2%	23 5.1%	27 6.0%	11 2.4%	1 0.2%	450

Source: Institutional Survey Conducted by Commission Staff, 1984.

TABLE 53

TOTAL ENROLLMENT AT FLORIDA MEDICAL SCHOOLS BY RACE AND ETHNICITY, 1980-1984

Race and Ethnicity	1980	1981	1982	1983	1984
White	1131 86.3	1114 84.7	1130 85.2	1182 83.6	1190 83.9
Black	59 4.5	64 4.9	67 5.1	65 4.6	63 4.4
Hispanic	107 8.2	122 9.3	112 8.4	127 9.0	126 8.9
Asian	14 1.1	15 1.1	17 1.3	39 2.8	39 2.7
American Indian	0 0	0 0	0 0	1 0.1	1 0.1

TABLE 54

GRADUATES OF FLORIDA MEDICAL SCHOOL BY RACE AND ETHNICITY, 1984

Medical Schools	Race or Ethnicity				
	White	Black	Hispanic	Asian	American Indian
UF	96 82.1%	13 11.1%	8 6.8%	0 0	0 0
USF	86 89.6%	4 4.2%	6 6.3%	0 0	0 0
UM	87 82.1%	2 1.9%	14 13.2%	3 2.8%	0 0
TOTAL	269 84.3%	19 6.0%	28 8.8%	3 0.9%	0 0

Source: Institutional Survey Conducted by Commission Staff, 1984 (Tables 53 & 54)

TABLE 55

TOTAL GRADUATES OF FLORIDA MEDICAL SCHOOLS BY RACE AND ETHNICITY
1981 - 1984

Race and Ethnicity	1981	1982	1983	1984
White	315 89.5	292 84.9	219 86.6	293 85.4
Black	13 3.7	15 4.4	13 5.1	19 5.5
Hispanic	24 6.8	34 9.9	19 7.5	28 8.2
Asian	0 0	3 0.9	2 0.8	3 0.9
American Indian	0 0	0 0	0 0	0 0
TOTAL	352	344	253	343

Source: Institutional Survey Conducted by Commission Staff, 1984.

schools. As the number of minority schools and student enrollment increased, there was a shift in the proportion of black students enrolled. In medicine, the proportion of blacks graduating from minority schools declined from one-half of the graduates to less than one-quarter. However, in the last several years, there has been an increase again in the proportion of blacks attending minority medical schools.

Financial Need and Aid for Minorities

The average family income of minorities, particularly blacks and Hispanics, falls below the national median. In addition, minority families tend to be larger than white families, thus increasing the financial burden on these families in terms of expenditures for higher education. By every measure--family income, education status of families, professional status of families, role models for students in the community and in higher education--the majority of blacks and Hispanics start from a more disadvantaged base than the majority of whites.

Issues of Concern

In 1983, the Association of Minority Health Professions Schools issued a report on the status of health professions education for minorities. The following is a selected list of the issues and options presented in the report pertinent to the Commission's deliberations.

1. While there may be an emerging surplus of health manpower in many fields, there is no surplus of black health manpower, and wide disparities will continue between the ratio of black manpower to black population and white manpower to white population.

2. Since the federal and state governments bear much of the cost of health care, they must be concerned about access to care and health status, since improved health status should translate into lower health and social expenditures.

3. An increase in the proportion of black health professionals is dependent on a number of factors:

    a. a commitment on the part of predominantly white health professions education institutions,
    b. admissions and retention policies,
    c. improved high school and college science training for black students, and
    d. affordable student financing.

4. Only a very small proportion of predominantly white health professions schools are responsible for increases in black student enrollment. Strategies to broaden this base include:

    a. strong commitment by governors, state legislators, and state higher education boards to ensure that state universities implement policies to increase minority enrollment,

b. increased scholarships and low interest loans to minority students,

c. a more aggressive federal policy of employment of civil rights and affirmative action programs and,

d. training of more minority faculty and minority faculty development.

5. Cutbacks in enrollment threaten to reduce total black enrollment and black health professions manpower.

The report concluded that there is a substantial probability that previous gains in the increase of black participation in the health professions will be eroded during the eighties unless action is taken to increase minority student financial support through scholarships and low interest loans, and to increase the commitment of predominantly white schools to recruit and retain black students, even if the schools reduce general enrollment.

State Responsibility

Although current discrimination by medical schools is not an issue here, medical schools, in common with many other institutions in our society, suffer from the effects of past discrimination. The state has a compelling interest in correcting the effects of past discrimination. Institutions would be strengthened by a student body reflective of the diversity of the State's population.

Florida Financial Aid Programs

Two financial aid programs in Florida are specifically designed for minority graduate students. The McKnight Foundation Black Doctoral Program, whose goal is to increase the number of black faculty in the colleges and universities in Florida provides 25 annual fellowships for minorities. Stipends vary between $10,000 and $15,000 per year and are given for three-year periods with the sponsoring institution funding the final year of the program. The Foundation will provide $1,000,000 per year for a three-year period. The program serves to increase the number of minority students in the State's graduate programs, as well as to provide a larger pool of minority faculty from which the State's colleges and universities can hire. The program is limited to Ph.D. students and thus will not include medical students. However, it may include Ph.D.'s in the basic sciences and thus may help increase the number of black faculty in the medical colleges where they are severely underrepresented.

The State University System Graduate Student Grant-in-Aid Program offers financial assistance to black graduate students in programs in which blacks are underrepresented. Students receive $5,000 a year or $2,500 a semester. Nominations are submitted by the institutions. In 1983-84, 57 students received awards from the nine universities. At the two universities having medical schools, the University of Florida nominated one medical student and the University of South Florida nominated six medical students.

The Commission received testimony that the amount of state monies available to increase minority representation in state medical schools is not sufficient to allow Florida schools to compete nationally in attracting highly qualified minority students.

The 1984 Legislature authorized the Board of Regents to collect up to five percent of the student tuition and matriculation fee for the purpose of financial aid. This amendment to the former policy will increase the total amount of money available for financial aid. Furthermore, in the 1985-87 legislative budget request for the State University System, the Board of Regents has requested that the number of stipends awarded to minorities through the Graduate Student SUS Grant-in-Aid program be increased from the current 64 to 114, a 78 percent increase the first year of the biennium with six additional stipends added the second year. The level of support, $5,000 per year, would remain constant.

17. The Board of Regents, as a part of the 1985-86 program review of health professions education, should conduct an analysis of the usage of these additional SUS Grant-in-Aid monies to assure that the needs of minority medical students are being met adequately.

The service-conditional loan forgiveness program recommended in Section C of this chapter should also provide additional financial support for minority students. Minority medical students personal and family income is considerably lower than that of whites and the program would be another source of financial assistance. Additionally, many of the underserved areas in Florida are predominantly minority in population and research has shown that medically underserved minorities, particularly blacks, are more receptive to minority health professionals. Thus, the inclusion of minorities in the loan program may help meet two state priorities: providing additional financial aid to minorities and increasing the number of minority practitioners in underserved areas.

18. The loan forgiveness program recommended in this report should give special consideration to minority students.

The State University System Graduate Student Grant-in-Aid Program supports primarily black students. Participation by blacks in the medical profession is lower than that of Hispanics. However, if these programs are successful in increasing the participation of blacks in medical education and the profession, there should be recognition of the underrepresentation of other minorities by expanding the eligibility of the programs to Hispanics.

19. The Board of Regents should expand the State University System Graduate Student Grant-in-Aid Program to include Hispanics.

20. Black students should remain first priority for the near future unless access for blacks shows relative improvement.

21. Priority among the different ethnic groups should be reassessed every five years and be based on participation rates.

Recruitment, Admissions and Financial Aid in Florida's Medical Schools

Each of the four medical schools actively recruit minorities, seek to provide equal opportunity for all students through their admission procedures and provide financial aid as needed.

The Commission staff surveyed the four medical schools concerning barriers to minority participation and all four schools reported that adequate financial aid is available for minority medical students both from the federal programs and institutional sources. All four colleges reported that lack of financial aid was not a factor in causing minority students either to refrain from enrolling or to withdraw after admission. However, the schools reported there were a very small number of qualified minority undergraduate students who are desirous of pursuing medical education.

Though all evidence seems to indicate that there are sufficient resources to meet the financial aid needs of minority students, it is not clear that minority students know this at the time that they are making critical career choices. This may occur in high school or in the first two years of college. It is important that minority students receive accurate and timely information about medicine as a career choice and ,the availability of financial assistance.

The 1984 Legislature appropriated $209, 000 for the first phase of a two year project designed to improve access to current information concerning the various types of student financial aid available at the Federal, State and local levels. When completed, the results of this effort, which is being directed by the Center for Career Development Services, will be incorporated in CHOICES, a computerized career guidance and information system. CHOICES currently provides access to a data base of over 1,000 career opportunities and more than 500 public and independent postsecondary institutions in Florida.

22. The CHOICES system maintained by the Center for Career Development Services should include information about medical education opportunities in Florida and the availability of financial aid and scholarships for minorities who desire to enter medical schools.

Minority Supplement to the Master Plan

The Postsecondary Education Planning Commission submitted a report in March 1984 entitled "Enhancing the Participation of Minority and Disadvantaged Students in Postsecondary Education." The report emphasized the importance of increasing the pool of qualified minority students entering postsecondary education through increased coordination and accountability throughout the educational continuum from kindergarten to postsecondary education. The RAISE bill enacted by the 1983 Legislature made substantial progress in that direction and further initiatives emanating from the Commission report and other sources which were enacted by the 1984 Legislature hold the promise of considerably improving minority students preparation for and performance in postsecondary education. The following is a summary of the major findings of and initiatives undertaken in the report.

Enhancing the Participation of Disadvantaged and Minority Students in Postsecondary Education

The second supplement to the Master Plan for Postsecondary Education presents a comprehensive set of recommendations for enhancing the participation of disadvantaged and minority students in postsecondary education. In accordance with proviso language in the 1983-84 Appropriations Act, it represents the work of a joint Legislative-PEPC committee which conducted public hearings across the state in its review of problems and possible solutions.

The Commission determined that the growing difficulty in providing further access to a larger proportion of disadvantaged and minority students has coincided with two trends. The first appears to be a diminishing pool of high school graduates who are prepared to benefit from postsecondary education. Consequently, a number of the report's recommendations relate to providing more effective participation of students in K-12 education, counseling options and linkages and cooperation between K-12 and postsecondary education.

The second trend which emerged during the late 70's has been an increased emphasis on quality. Higher standards are required to ensure that all students have the skills to succeed economically and socially in a changing world, and higher expectations do inspire better performance. However, the focus on quality when defined only by high standards for students performance can reduce the participation of minority and disadvantaged students in postsecondary education. Special actions were recommended to strengthen the quality of educational services to help more students realize their potential in meeting the higher standards. The major theme was that educational preparation should be improved in the earlier levels of education, particularly from K-12 up through the sophomore year in college. Such an emphasis would acknowledge the importance of sequence and continuity in educational preparation.

A number of the Commission's recommendations were considered and translated into legislative initiatives during the 1984 session. Legislation related to the enhanced participation of disadvantaged and minority students in postsecondary education included:

- the development of college preparatory instruction for students with high school diplomas who intend to enter a postsecondary degree program. Effective July 1, 1985 based upon placement tests, students needing additional preparation will be placed in college prep courses to receive intensive instruction to acquire any skills that were not previously gained.

- the college preparatory program will be funded through the adult education program and was established as one of the service priorities for funding purposes.

- student eligibility for financial aid is to be expanded by institutions to allow students participating in college preparatory instruction or requiring additional time to complete CLAST to continue to receive financial aid for a maximum of 10 semesters or 15 quarters.

- the Florida Student Assistance Grant language was amended to allow for the extended participation of students participating in college preparatory or CLAST make-up instruction.

- community colleges and universities were directed to spend fifty percent of their student aid fee derived revenue for need-based financial aid and to report annually on a delineation of the distribution of such awards.

- model programs were authorized to be developed that would focus on students likely to become academic underachievers, failures, truants, dropouts or severe behavioral problems.

- scholarships of $5,000 each were funded for twenty minority students to attend Florida State and the University of Florida law schools.

- start-up costs were covered by an appropriation to initiate a user-friendly computerized ready access system for financial aid for Florida students.

- the College Reach Out Program was funded to provide counseling and tutorial activities for low income or educationally disadvantaged high school students to increase their participation in postsecondary program.

Though the minority supplement to the Master Plan dealt with issues pertaining to K-12 and undergraduate education, it has relevancy for minority participation in medical education. Testimony from medical schools in Florida and the American Association of Medical Colleges indicate that medical schools actively recruit minority students but that the pool of qualified minorities who apply for admission to medical schools is extremely limited. The most important actions that states can take to improve minority participation in medical schools is to improve the preparation of minority students in the critical years of K-12 and undergraduate preparation.

The Commission believes that measures to improve the overall academic performance of minority students in K-12 and undergraduate education is the most promising avenue to improving the participation of minorities in medical schools. Implementation of the measures outlined in the Master

Plan Supplement on Enhancing the Participation of Minorities should significantly improve the preparation of minority students and help increase the pool of qualified applicants.

23. The primary way to increase minority participation in medical schools is to improve the performance and preparation of minorities in the earlier stages of K-12 and undergraduate education. Specific strategies to bring about such improvements were outlined in the Master Plan Supplement on Enhancing the Participation of Disadvantaged and Minority Students in Postsecondary Education, and the 1984 Legislature adopted several of the recommendations contained within the Supplement. Implementation of these measures should be continued.

Special Programs for Minorities

The University of Florida's Office of Minority Relations is concerned with recruiting, admitting and retaining qualified minority students. Minority students already enrolled in the college are very active in the recruitment effort. The 1984-85 academic year began with ten black first-year medical students. There are 35 black students enrolled in the College of Medicine, eight of whom anticipate graduating in May, 1985.

Recruiting is concerned with dissemination of information about the health professions and the education qualifications of the prospective student. In order to accomplish both of these goals, the following objectives are emphasized.

1) Identifying students interested in health-related professions.

2) Providing interested students with information concerning academic and personal qualifications.

3) Discussing the college's curriculum.

4) Advising students about admission tests.

5) Discussing available financial assistance.

Also, recruiters present information and answer questions from students about Gainesville and the University of Florida.

Representatives from the Office of Minority Relations visit high schools in Florida and colleges throughout the southeastern part of the United States. At the high school level, recruiters inform students of opportunities in the health-related professions and serve as role models. Students are encouraged to be diligent in their studies and to include the sciences in their curriculum.

Minority undergraduates who are intereviewed during college visits often relate inadequate preparation in science courses. This information is conveyed to high school counselors. To assist in recruiting high school students, the Office of Minority Relations also sponsors an annual spring "teach-in," in which students from high schools in Florida visit the Health Center. Most of the recruitment effort is in predominantly Black colleges in Florida and the Southeastern part of the United States.

In the 1984 Appropriations Act, $100,000 from the College Reach-Out Program was specifically "allocated to the University of Miami Medical School Minority Affairs Office." The minority Student Health Careers Motivation Program is a program which has been at the University of Miami since 1977. It is offered for two months during the summer for minority students entering the junior or senior years at the University of Miami and who intend to enter medical school. The program is patterned after a medical school curriculum including instruction in anatomy, histology, biochemistry, micro-biology, reading and comprehension. Other objectives include helping students prepare for the Medical College Aptitude Test (MCAT) and helping students develop study skills necessary for success in medical school. Students are provided $600 in stipends, plus transportation and housing for those who cannot commute. The program allocates first priority to students from the community college and universities in Dade County and then serves the State and the southeastern U.S. respectively. To date, 56 students have participated in the program. Twenty-one of these have entered medical school, five entered other health-related careers, 14 are in graduate school and 13 are college seniors. There have been no medical school graduates yet.

Programs such as the University of Miami Health Careers Motivation Program that identify minority and disadvantaged pre-medical students early in the undergraduate years and offer specific academic support and advisement are well designed to increase the pool of qualified minority applicants to medical schools.

24. The State should continue to support the University of Miami Health Career Motivation Program and should require the university to report annually on the activities and participants of the program. Follow-up data on program participants should be provided to the Department of Education's Office of Medical Education. The State should consider supporting similar programs at the other two universities which have medical schools.

25. State universities and community colleges which do not have medical schools should consider applying for College Reach-Out grants from the Department of Education to support programs for minorities who intend to enter medical school upon graduation.

E. Geriatric Medical Education

In the 1970s, concerns were expressed during Congressional hearings about the ability of many physicians to manage the health problems of the aged. Further evidence of Congressional interest in geriatrics was visible in 1974 with the establishment of the National Institute on Aging for the purpose of stimulating and supporting research on aging.

In 1977 the National Institute on Aging asked the Institute of Medicine to investigate the effectiveness with which knowledge of aging was being incorporated into medical education. Several conclusions were reached as a result of this endeavor.

1. Care of the aged calls for application by the physician of some special knowledge, skills, and attitudes;
2. These aspects of physician competence should receive appropriate emphasis throughout medical education and in the accreditation and certification procedures;
3. Substantial improvements in teaching about the process of aging and problems of the aged are required at all levels of medical education;
4. New opportunities exist for the development of knowledge in aging, but the amount of funding available for research and training appeared to be limited.

The conclusions served as the basis for recommendations about geriatric medical education. Those recommendations are summarized by the Institute of Medicine as follows:

"-- that medical schools include appropriate content on aging in basic and clinical science courses and . . . the establishment of a complementary required course that integrates knowledge about aging and the problems of the elderly;

-- that preparation for care of the aged be included in clinical clerkships and in housestaff training programs, as well as in examinations for certification and licensure;

-- that nursing homes and other long-term care facilities be included in clinical rotations for medical students and housestaff. Experience with home health programs and other alternatives to institutionalization is also desirable;

-- that teaching about aging receive increased emphasis in continuing medical education (CME), and that the Liaison Committee on Continuing Medical Education and its sponsoring organizations support increased geriatric content in CME programs;

-- that medical schools develop a cadre of faculty to teach gerontology and geriatrics to medical students and housestaff, and that a) post-residence training or fellowship programs be developed in settings that have either the necessary leadership in geriatric medicine or have a potential for promptly developing it, and b) a limited number of career development awards in gerontology and geriatrics be established;

-- that a formal practice specialty in geriatrics not be established but that gerontology and geriatrics be recognized as academic disciplines within the relevant medical specialties;

-- that efforts to meet the education needs of medical directors of skilled nursing facilities (SNFs) be assumed jointly by medical schools and SNFs; and,

-- that funding be expanded in various aspects of aging research including basic biological and behavioral sciences, clinical medicine, and health services research.

Geriatric physicians maintain that adequate geriatric care requires a combination of complex biological and psychosocial interventions which involves specific skills and understanding. They contend that geriatric problems are complex and include a psychosocial component which differs from the typical categories of research and clinical interests. Their belief is that adequate care of the elderly necessitates a teamwork and outreach approach which differs from that found in a typical academic center. The emphasis in geriatric medicine is not solely on cure, but on caring and coping as well.

This approach is found to be most successful through interdisciplinary activity in which a medical student encounters geriatrics as a component of every aspect of medical training. While some have believed that geriatrics should become a medical specialty, the current trend is to view the appropriate place of geriatrics to be that of an integral part of the entire medical curriculum.

Older persons have medical problems which require a physician with thorough preparation in every aspect of medical training. What is necessary is the additional knowledge, skill, and experience to recognize how medical problems and the aging process are interrelated. It is essential that medical students receive training in a clinical setting in order that they learn the relationship between medicine and the aging process. They must also develop a understanding of the psychosocial aspects of an elderly person needing medical care.

26. Each college of medicine should consider a clinical experience in geriatrics for all medical students.

At the present, no state recognizes geriatrics as a specialty and it is difficult to attract young medical students into an unrecognized specialty. Additionally, the financial incentive is insufficient for most physicians to seek practices comprised solely of persons over 65. An additional limitation to producing geriatric specialists is the lack of physicians with sufficient academic and experimental preparation for providing appropriate, specialized medical education in geriatrics. Practicing physicians must have access to continuing medical education in geriatrics in order that they become better able to provide medical care to Florida's elderly population.

27. Florida's colleges of medicine should continue to emphasize geriatrics as an important component in the curricula of their continuing medical education programs.

28. The State Board of Medical Examiners should review the appropriate role of geriatric education in the licensing and license renewal of physicians who will be treating older patients.

Until very recently geriatrics has received little emphasis in most American schools. Presently approximately 90% of these are offering at least one geriatric course as a component in the curriculum. Others have taken a more active role in providing professional medical education and research in geriatrics. A significant effort is necessary to provide a geriatric orientation for current medical faculty members in order that they become equipped to integrate geriatrics into the curriculum of their specialties.

29. Faculty members in Florida's colleges of medicine should receive necessary appropriate training in geriatrics in order to integrate a geriatric component in the curriculum of their individual disciplines.

Geriatric Medical Education in Florida

The following are brief descriptions of the geriatric component of Florida's colleges of medicine.

The University of Florida College of Medicine. In 1981, the College of Medicine received a five-year Geriatric Medicine Academic Award from the National Institute on Aging for the purpose of enhancing the geriatric skills of a faculty member and expanding the geriatric curriculum content by both developing specific experiences in geriatrics and increasing the geriatric content of established courses. An additional purpose was to foster interest in geriatrics, the aging process, and care of the elderly among medical students.

Currently all students attend a lecture course in geriatrics and gerontology. They also can choose from among a group of elective geriatric offerings. Increasing numbers of students are taking these geriatric electives and students from other United States medical schools have come to the University of Florida to take these courses.

In addition, the Department of Medicine is in its eighth year of a Residency Training Program in General Internal Medicine sponsored by a Public Health Service grant from the Bureau of Health Professions. A geriatric training component has been part of the program since its inception. In fact, the program was singled out for mention in the Institute of Medicine report on geriatric medical education in the nation.

The Gainesville VA Medical Center was awarded one of the nation's 12 VA Geriatric Fellowship Programs which is operated in conjunction with the Department of Medicine in the College of Medicine. Its purpose is to train physicians who will become future leaders in geriatrics. The VA Medical Center also has a recently constructed 120-bed nursing home which serves as a focus for geriatric education for medical students, house officers, and fellows, plus students in other disciplines (e.g., pharmacy, dentistry, and physician's assistants).

A continuing medical education series sponsored through the Department of Community Programs and Family Medicine is currently in its eighth year. Physicians and paramedical personnel from the State and nation attend this conference. Additionally, faculty members teach in other geriatric continuing medical education programs throughout the nation.

Interaction occurs between faculty members in the College of Medicine and the other colleges of the Health Center (Nursing, Dentistry, Pharmacy, and Health Related Professions) and the University's Center for Gerontological Studies. Faculty from the geriatric program in the medical school teach in gerontology courses in the College of Arts and Sciences.

University of South Florida College of Medicine. The University of South Florida College of Medicine established a Division of Geriatrics within the Department of Internal Medicine. The college received a three-year grant from the National Institute on Aging for program development in geriatrics.

The University of South Florida medical faculty are actively involved in geriatric training at the Veterans Administration Hospital on the campus. Some residents serve clinical rotation through the geriatric evaluation unit.

Medical students can elect a geriatric course during their senior year, and some serve in a unit for the terminally ill. All new medical students are required to enroll in a 16 hour course in geriatrics.

In Fall, 1984, the College of Medicine received its first Fellow in Geriatric Medicine. In addition, the college has an established Department of Geriatric Psychiatry. It has developed a geriatric study group for both faculty and students to discuss issues relevant to geriatric medicine.

Southeastern College of Osteopathic Medicine (SECOM). All medical students at the SECOM are required to take specific training in geriatrics. This policy is consistent with the college's philosophy of training well-rounded general practitioners and its belief that geriatrics is not a specialty practice but an age-related aspect of general practice. Every student takes an 18-hour didactic course in geriatrics taught by an Associate Professor of General Practice whose background includes a long period of management of a geriatric facility in New York. He also serves as the director of the geriatric rotation.

Every student is required to spend one month on rotation at a geriatric rehabilitation home. These students are presently placed at Greynolds Park Rehabilitation Center, one of only a few teaching nursing homes in the country and one of the few accredited by the Joint Commission. The Medical Director and the Executive Director of Greynolds Park Rehabilitation Center are faculty members of the College. SECOM is discussing expansion of its geriatrics program with one or two additional nursing homes.

The University of Miami College of Medicine. The Department of Psychiatry established a fellowship in geriatric psychiatry which is presently in its fifth year. The fellowship program utilizes Mt. Sinai Hospital and the Miami Jewish Home for the Aged as its clinical resources.

The Department of Family Medicine established a fellowship in geriatric medicine three years ago which utilizes the Extended Care Program of the Veterans Administration Medical Center and the clinical services of the South Shore Hospital for training resources. The Department of Family Medicine also co-sponsors a geriatric assessment program in the South Shore Hospital which is now in the second year of a three-year grant from the Robert Wood Johnson Foundation.

In a recent comprehensive five-year plan for the College of Medicine, University of Miami administrators included the following item for curriculum development.

> Develop an education program in Gerontology and Geriatric Medicine. Like Preventive Medicine, these subjects are probably best introduced into the curriculum by integrating the material into already existing courses and clerkships. Topics in Gerontology could be presented in Physiology, Biochemistry, Histology, Pathology, Pharmacology and Mechanisms of Disease. Geriatric Medicine could be taught in the Medicine, Surgery, Anesthesia, Neurology, and Psychiatry clerkships. Special electives should be developed that provide students with an opportunity to work with aged patients in the chronic care setting.
>
> Again, the Dean should designate an Ad Hoc Committee of faculty from the basic sciences and clinical disciplines (including Curriculum Committee members) to implement this teaching program (after approval by Curriculum Committee). Faculty with expertise in Gerontology and Geriatric Medicine should be recruited, but the appointment and work of the Ad Hoc Committee should not be delayed for this reason.

Since this plan was developed, a course in geriatrics has been developed for inclusion in the 1985-86 academic curriculum.

30. As a function of its health professions program review in 1985-86, the Board of Regents should determine whether the geriatric components of the curricula of Florida's medical schools are consistent where appropriate and are adequate to meet the educational needs of physicians who will treat an increasing number of older patients.

31. The Florida Department of Health and Rehabilitative Services' Office of Health Planning should continue to determine the patterns of health care utilization by the elderly. Faculty in Florida's colleges of medicine should review this information in determining the nature and extent of the geriatric components of their curricula.

F. Graduate Medical Education

Graduate medical education refers to the professional training that medical students pursue after they finish medical school and receive the doctoral degree. In Florida, programs are offered at 45 hospitals and clinics. See Tables 57 and 58.

Allopathic Graduate Medical Education

By the 1930s, advances in medical knowledge had resulted in many physicians recognizing the need for education beyond the M.D. curriculum. By the 1960s, graduate medical education had become an integral part of a physician's education and the educational process became a continuum extending well beyond the awarding of the M.D. degree.

Residency programs are designed to develop graduates of medical schools into physicians capable of practicing medicine independently. Most programs last from three to five years, although a few surgical specialities require seven years. See Figure Seven. Throughout the process, the resident assumes greater responsibility in caring for patients, solving diagnostic and therapeutic problems, and performing medical procedures.

The initial year is spent developing basic clinical skills, such as history taking, patient evaluation, and diagnosis. In the second and third years, the resident takes on larger patient caseloads and begins assuming more responsibility for diagnosis and treatment. The final years are spent practicing and perfecting the techniques learned in earlier years. Designation as Chief Resident generally implies independent clinical activity, backed up by a supervising faculty member. Throughout all years, patient experience is reinforced by lectures, seminars and readings.

Graduate medical education has traditionally been conducted in a tutorial mode with an experienced physician supervising a physician in training. Today, residents at various levels work in a team under the supervision of an attending faculty member. Each member of the team serves as an instructor and supervisor of those below him or her in the continuum, from the most advanced resident on down to the undergraduate medical student. Residents play a significant role in the teaching of undergraduate medical students and other residents. While exposure to the full-time faculty may be only three or four hours a day, the instructional process among residents and medical students is ongoing and continuous--days, nights, weekends, in corridors and at the bedside.

A subspecialty resident (fellow) generally spends an additional two or more years in training beyond that required for certification as a specialist. These years are spent in intensely specialized clinical work and in developing the skills necessary to become an independent investigator.

Residents at all levels play a major role in health care delivery. Under the supervision of faculty, they provide hospitals with specialized physician manpower 24 hours a day, seven days a week. Complex patient cases which are difficult or impractical to treat in a private setting are referred to the teaching hospitals where a full range of services are available.

TABLE 57

FLORIDA HOSPITALS WITH ALLOPATHIC RESIDENCY PROGRAMS

HOSPITAL	CITY
All Childrens Hospital	Tampa
Anciote Manor Hospital	Gainesville
Baptist Medical Center	Jacksonville
Baptist Hospital	Pensacola
Bascom Palmer Eye Institute/ Anne Bates Leach Eye Hospital	Miami
Bayfront Medical Center	St. Petersburg
Broward General Medical Center	Miami
Florida Hospital	Orlando
James A. Haley Veterans Hospital	Tampa
Harry-Anna Crippled Childrens Hospital	Orlando
Hillsborough County Hospital	Tampa
Jackson Memorial Hospital	Miami
Memorial Medical Center	Jacksonville
Miami Childrens Hospital	Miami
Mount Sinai Medical Center of Greater Miami	Miami
Naval Aerospace Medical Institute	Pensacola
Naval Hospital	Pensacola
Naval Hospital	Jacksonville
Nemours Childrens Hospital	Jacksonville
Orlando Regional Medical Center	Orlando
Sacred Heart Hospital of Pensacola	Pensacola
Shands Hospital at University of Florida	Gainesville
Southwest Florida Blood Bank	Tampa
St. Josephs Hospital	Tampa
St. Vincents Medical Center	Jacksonville
Tallahassee Memorial Regional Medical Center	Tallahassee
Tampa Bay Craniofacial Center	Tampa
Tampa General Hospital	Tampa
University Hospital	Jacksonville
University Hospital and Clinic	Pensacola
University of Miami Hospital	Miami
University of South Florida Medical Clinics	Tampa
V.A. Medical Center	Gainesville
Veterans Administration Medical Center	Miami
West Florida Hospital	Pensacola
Wolfson Childrens Hospital	Jacksonville

Source: Directory of Residency Training Program, 1984-1985.

TABLE 58

1984-85

FLORIDA HOSPITALS WITH OSTEOPATHIC INTERNSHIP AND RESIDENCY PROGRAMS

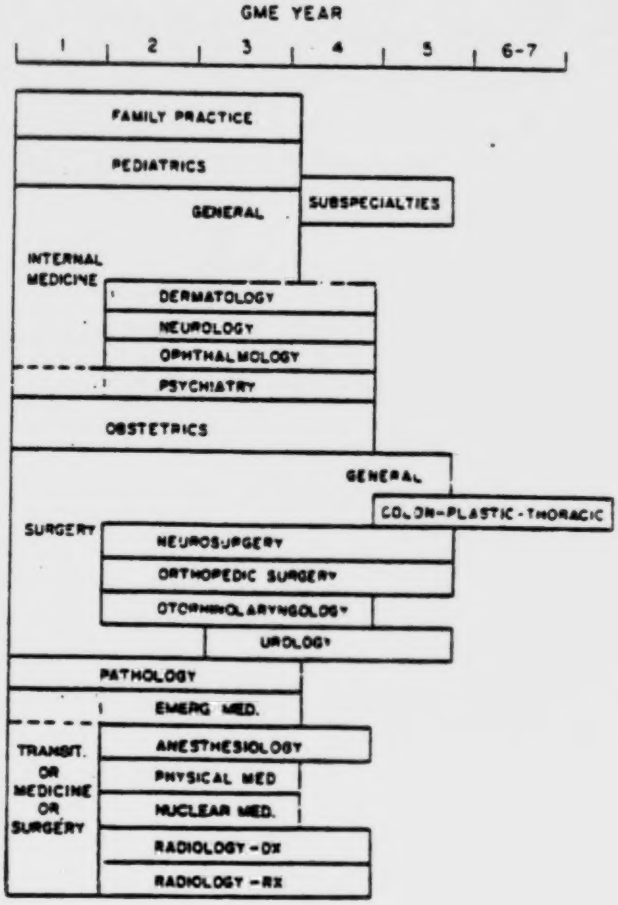
(Approved by the AOA)

City	Hospital	Internship	Residency Program
Hollywood	Community Hospital South Broward	X	
Jacksonville	Jacksonville General	X	X
Largo	Sun Coast	X	X
Miami	Westchester General	X	
North Miami Beach	Southeastern Medical Center	X	X
Orlando	Orlando General	X	
Pinellas Park	Metropolitan General	X	
Plantation	Doctors General	X	
West Palm Beach	Humana Hospital Palm Beaches	X	

Source: American Osteopathic Association, Yearbook and Directory of Osteopathic Physicians, 1983-84.

FIGURE SEVEN

YEARS OF GRADUATE MEDICAL EDUCATION GENERALLY REQUIRED FOR CERTIFICATION BY VARIOUS SPECIALTY BOARDS



Source: National Resident Matching Program. NRMP Directory, October 1982, pg. 37.

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For 1984-85, there are 1896 civilian residency positions in Florida offered at hospitals or clinics. As shown in Table 59, 878 positions are in primary care and 195 positions are in family practice. Concern has been expressed over the last two decades that a disproportionate number of students are choosing to specialize in non-primary care fields resulting in an oversupply of some specialty areas and a shortage of primary care providers, in particular, family or general practitioners. It has been suggested that 25 percent of physicians should be in family practice, another 25 percent in the other primary care areas and 50 percent in other specialties. In Florida, only 10.3 percent of the allopathic residency positions are in family practice. Forty-six percent are in primary care.

Florida has considerably fewer residents for its size than the national average. Though Florida has 4.5 percent of the U.S. population, it only has 2.5 percent of the allopathic residents. The number of residents in Florida is relatively similar to the number of students in medical school. Medical planners consider this alignment advantageous and in marked contrast to some states such as California which has considerably more residency positions than medical school graduates.

Osteopathic Graduate Medical Education

Similar to allopathic education, the goal of osteopathic graduate medical education is to qualify physicians as skilled practitioners. Traditionally, post doctoral training in the osteopathic profession has been based at community hospitals. The first years of osteopathic general medical education is a rotating internship which is a broad clinical experience emphasizing generalist skills and preparation for general practice. Ninety-nine percent of all medical school graduates take the one-year internship. The core curriculum mandates three months of internal medicine, three months of surgery, one month of general practice, one month of obstetrics and gynecology and one month of pediatrics. The remaining three months are comprised of various combinations of other fields. After completion of the internship, the osteopathic physician can either enter general practice or a residency program for specialty training. In 1984-85, there are 1,428 approved internship programs in the U.S. and 92 AOA-approved hospitals for internships. The programs in Florida are listed in Table 60.

The American Osteopathic Association (AOA) offers accredited specialty and subspecialty residency programs that build upon the internship year and give osteopathic physicians the opportunity to acquire training skills in specific areas. Residency programs vary in length depending on the basic standards established by the specialty college and approved by the AOA. In the past decade, there has been growth in both the variety and number of specialty and subspecialty residency programs. Currently there are 36 accredited specialties with residency programs which, once completed, quality the physician for eligibility leading towards eventual certification. In Florida, residency programs are offered in seven different areas. See Table 61.

State-level Planning and Graduate Medical Education

There is no clear consensus on the responsibilities of the state in planning, coordinating and financing graduate medical education.

TABLE 59

RESIDENCY POSITIONS IN FLORIDA
1984-85

SPECIALTY	POSITIONS	PERCENT OF TOTAL
Primary Care		
Family Practice	195	10.3
Internal Medicine	326	17.2
Obstetrics/Gynecology	128	6.8
Pediatrics	197	10.4
Sub-Total	878	46.3
Other		
General Surgery	206	10.9
Surgical Specialties	234	12.4
Medical Specialties	179	9.5
Pediatric Specialties	13	0.7
Hospital-Based Specialties	298	15.8
Psychiatry	88	4.7
Total	1896	100.0%

Source: Florida Department of Education, Office of Medical Programs, 1984.

TABLE 60

1984-85

OSTEOPATHIC INTERNSHIP PROGRAMS IN FLORIDA

(Approved by the AOA)

Hospital	Positions
Community Hospital of South Broward	10
Sun Coast Hospital (Largo)	14
Westchester General Hospital (Miami)	2
Southeastern Medical Center (North Miami Beach)	12
Orlando General Hospital	8
Metropolitan General Hospital (Pinellas Park)	9
Doctors General Hospital (Plantation)	9
Human Hospital Palm Beaches (West Palm Beach)	5

Source: American Osteopathic Association, Yearbook and Directory of Osteopathic Physicians, 1983-84.

TABLE 61

1984-85

OSTEOPATHIC RESIDENCY PRACTICE AREAS IN FLORIDA

(Approved by AOA)

Practice Area	Positions
Anesthesiology	3
General Practice	2
Internal Medicine	9
Obstetrics and Gynecology	2
Orthopedic Surgery	2
Surgery (General)	7
Urologic Surgery	1

Source: American Osteopathic Association, Yearbook and Directory of Osteopathic Physicians, 1983-84.

Residencies lead neither to advanced degrees nor licensure - which are the goals of most professional education programs. Rather, they lead to certification by an appropriate speciality board with a commensurate choice of career specialization for the physician. On the other hand, it is by choice of residency that a physician selects a speciality and thus residency programs in a state may play a significant role in determining the number and mix of specialists in the state. This, however, is less the case in Florida where the major determinant in physician specialty mix is the importation of physicians.

Generally speaking, residencies have not been subject to close coordination and control by the State. Residency programs are sponsored by hospitals, which are responsible for paying the stipends of the residents - approximately $18,000 per year. The accreditation of residencies is provided by the Accreditation Council on Graduate Medical Education, a national organization representing various interest groups, including those of medical education and hospital coordination. Affiliation with a medical school is not a requirement for accreditation.

One of the findings of the Commission in interviews with teaching hospital representatives is the large role of indigent care ,service needs in determining the mix of specialties at hospitals. For example, Tampa General has a large residency program in obstetrics/gynecology because of the large number of indigent births at the hospital. Residents who earn considerably less than other physicians are providing the services for which the hospital is being only partially compensated. In fact, it is the needs of the indigent patients that are determining the size and mix of residency programs, not the perceived need of the State or the region for increased physician manpower in these specialties. The same forces drive the program mix at University Hospital and Jackson Memorial. This is less the case at Shands which, because of its statewide mission, has more control over the patients it admits. Not surprisingly, representatives of the hospitals indicated that the $800,000 the State appropriated for graduate medical education was relatively of little importance compared to the huge uncompensated indigent patient billings and that if the counties or State would fully fund indigent care, the graduate medical education support would be unnecessary.

Financing of Graduate Medical Education

The financing of graduate medical education is highly complex and subject to considerable national debate at the moment. The educational process and the delivery of health care services are inextricably linked and numerous cost studies have failed to isolate the different costs. A resident is simultaneously a student, a teacher and a practicing physician. Clearly, one direct expense associated with graduate medical education is the resident's stipend. However, even without including residents' stipends, costs at teaching hospitals are higher than those of non-teaching hospitals and some of the cost differential is clearly attributable to the educational mission of the hospital. Some expenses are relatively discrete such as increased need for space, laundry services, cafeteria services, malpractice premiums and compensation. Other expenses are not easily isolated or quantifiable such as patient case mix requirements, the acuity of patients who often have multiple diagnosis and clinical research-related expenses impacting hospital services, staff time and equipment.

Hospitals finance educational costs primarily from general operating revenues, that is to say, third-party reimbursement. Two other sources are Medicare reimbursements which allow hospitals to charge a certain amount for educational costs and state governments which have various programs for underwriting graduate medical education.

Currently, the State of Florida subsidizes graduate medical education directly in two separate ways. Through the Community Hospital Education Program, the State subsidizes residency programs in hospitals according to perceived need in the State for the particular specialty. The program monies are allocated on a per capita basis and only go to residency programs for specialties which the Community Hospital Education Council (CHEC) determines to be undersupplied in Florida. The program has been credited with providing Florida with an improved physician specialty mix, in particular an increased number of primary care and family practice physicians.

The second way in which the State directly supports graduate medical education is more complicated and the intent and objectives are less clear. The State appropriates monies through the public medical school budgets to the three advanced teaching hospitals in the State that have primary affiliations with the public medical schools. The monies are roughly equivalent, approximately $800,000. The method by which the monies are appropriated, however, and the basis for their appropriation is very different for all three hospitals. At Shands, the state funds are part of the Shands contract and are designated in the budget as "non-reimbursed teaching costs." (They originally were based on the annual cost of maintaining an ambulatory clinic of the UF medical school.) There is a widespread perception that the entire Shands contract, about $9 million, is for graduate medical education. In actuality, the funds are for uncompensated patient services. Shands has annually about $21 million in uncompensated patient services of which approximately $9 million is underwritten through the Shands contract. The contract is in this sense similar to the contracts that Tampa General, University Hospital and Jackson Memorial have with Hillsborough, Duval and Dade counties, respectively, by which the counties reimburse to the hospital unpaid patient billings. The difference is that Shands has a primary statewide mission while the other three examples cited have primarily local or regional missions. While there may be some legitimate debate over how extensive Shands' actual service areas are or how local or regional the others are, it is nonetheless clear that the Shands contract is to help support unpaid patient billings. It is not to support directly graduate medical education.

At Tampa General, the State appropriates monies which cover 37 percent of each resident's stipend. The amount is around $800,000 per year. This is the clearest and simplest of the funding mechanisms of the three hospitals.

At University Hospital in Jacksonville, the State subsidizes the salary of twenty physicians who are on the faculty of the University of Florida but who are officed at University Hospital and who supervise the residency programs. They serve primarily as departmental chairmen for the hospital. A few undergraduate medical students rotate through University Hospital.

The present state policy of direct funding of graduate medical education poses several problems. There is no comparable base for justifying the levels of appropriation. Secondly, the objectives being pursued by funding only the teaching hospitals associated with the two public medical schools are unclear. The only objective that would be addressed by such a policy is to help offset the costs to the hospital of having residency programs which provide a necessary and advantageous educational and professional environment from which undergraduate medical students profit. In other words, recognizing the residency programs as being an asset to the undergraduate medical students would justify state support to the ones that have primary affiliation only with public medical schools. However, that is a very limited objective. Broader objectives would be providing attractive training sites by which to attract the best medical school graduates from throughout the country or, more simply, affirming that graduate medical education is an area of responsibility for the State and that it should help in providing access. However, these latter objectives would not rationally distinguish between programs at hospitals affiliated with public medical schools and ones affiliated with private schools or, for that matter, with programs that have no medical school affiliation.

In the absence of articulated objectives for the present appropriations to the three hospitals (other than the one articulated above to help subsidize the presence of programs that are beneficial to the undergraduate program), it would be a more clear state policy simply to add that amount to the general operating budget of the medical schools and allow the medical schools to negotiate independently with the three hospitals for needed services.

If state objectives are broader, such as improving the quality of programs with the intent of attracting students of high quality, then funding policies should not distinguish between hospitals with affiliations with public or independent medical schools or non-affiliated hospitals. In fact, the hospitals that are not associated with medical schools have more programs in the specialty areas in shortage in the State. For example, 81.8 percent of the family or general practice residency positions are in nonaffiliated hospitals. Conversely, 62.8 percent of the referral specialties are in the hospitals affiliated with medical schools. See Table 62.

The funding of teaching hospitals in Florida as well as in the rest of the country is undergoing significant changes. The piecemeal conversion of Medicare to a DRG-based reimbursement procedure may limit revenues for hospitals. At the moment, teaching hospitals are allowed a direct pass-through for teaching costs but this provision may be eliminated in the next few years. On the other hand, in Florida, the actions of the 1984 Legislature creating a one-percent tax on hospital profits to be used to help subsidize the medically indigent may help relieve some budgetary pressures on teaching hospitals which usually have large indigent care patient loads. Thirdly, Senator Durenberger of the U.S. Congress has introduced a bill to change the current Medicare direct payments for graduate medical education to a program of grants to the states. This proposal has sparked considerable interest in and debate about graduate medical education financing. It is also possible that the President's 1986 budget proposal will seek to change current Medicare reimbursement for clinical training.

TABLE 62

RESIDENCY POSITIONS IN FLORIDA HOSPITALS BY MEDICAL SCHOOL AFFILIATION

1984 - 1985

	AFFILIATED					NON-AFFILIATED		TOTAL	
	Medical School			Total					
Residency Program	UF	USF	UM	No.	%	No.	%	No.	%
PRIMARY CARE									
Family/General	18	-	36	54	18.3	242	81.8	296	100.0
Obstetrics/Gynecology	16	20	47	83	61.4	52	38.5	135	100.0
Internal Medicine	52	63	123	238	71.2	96	28.7	334	100.0
Sub-Total	86	83	206	375	49.0	390	51.0	765	100.0
OTHER SPECIALTIES									
Allergy/Immunology	-	2	-	2	100.0	-	-	2	100.0
Anesthesiology	51	4	62	117	100.0	-	-	117	100.0
Dermatology	-	3	12	15	71.4	6	28.6	21	100.0
Dermatopathology	-	-	1	1	100.0	-	-	1	100.0
Emergency Medicine	-	-	-	-	-	32	100.0	32	100.0
Neurological Surgery	10	-	11	21	100.0	-	-	21	100.0
Neurology	8	6	18	32	100.0	-	-	32	100.0
Nuclear Medicine	-	-	3	3	100.0	-	-	3	100.0
Opthalmology	15	9	18	42	100.0	-	-	42	100.0
Orthopedic Surgery	13	10	24	47	72.3	18	27.7	65	100.0
Otolaryngology	11	-	-	11	100.0	-	-	11	100.0
Pathology	13	18	17	48	69.6	21	30.4	69	100.0
Pathology-Blood Bank	-	1	-	1	100.0	-	-	1	100.0
Pathology-Forensic	-	-	4	4	100.0	-	-	4	100.0
Pathology-Neuropathology	2	-	1	3	100.0	-	-	3	100.0
Pediatrics	36	24	35	95	51.6	89	48.4	184	100.0
Pediatric Cardiology	4	-	3	7	100.0	-	-	7	100.0
Plastic Surgery	4	-	6	10	71.4	4	28.6	14	100.0
Preventive Medicine-Aerospace	-	-	-	-	-	9	100.0	9	100.0
Preventive Medicine-Public Health	-	-	-	-	-	6	100.0	6	100.0
Psychiatry	24	16	36	76	100.0	-	-	76	100.0
Psychiatry-Child	-	4	4	8	100.0	-	-	8	100.0
Radiology-Diagnostic	22	15	24	61	66.3	31	33.7	92	100.0
Radiology-Therapeutic	12	-	3	15	100.0	-	-	15	100.0
Surgery	39	34	56	129	62.6	77	37.4	206	100.0
Thoracic Surgery	4	-	4	8	100.0	-	-	8	100.0
Urology	6	10	9	25	89.3	3	10.7	28	100.0
Sub-Total	274	156	351	781	72.5	296	27.5	1077	100.0
Total	360	239	557	1156	62.8	686	37.2	1842	

Source: Directory of Residency Training Programs, 1984-85.

In the light of substantial recent changes and further anticipated changes in indigent care and graduate medical education funding, it would be premature for Florida to revise significantly current policies. However, there is no doubt that the entire funding structure for graduate medical education and teaching hospitals will be reconstructed over the next few years and it is important that Florida's present policies be clear and direct and conducive to a straightforward debate of the issues. There are a number of changes that can be made at this point which would help clarify present funding policies and objectives and thus set the stage for future deliberations.

The budgeting process in regard to graduate medical education should be brought into line with actual and perceived objectives.

32. The present monies to Shands, Tampa General, and University Hospital should be listed as part of state support for undergraduate medical education and not distinct in the budget nor designated as intended to be spent on graduate medical education.

33. Until the impact of the one-percent tax on hospital profits on indigent care financing is made clear and until the federal policy changes have stabilized, the State should not initiate any new funding policies for graduate medical education outside of the present Community Hospital Education Program.

The medical school parts of the budget should be restricted to items that directly fund medical education. The Shands contract, for example, is more directly related to indigent care support than educational support and the way it is handled in the budget should reflect this. Furthermore, the new cancer hospital at USF Medical Center and other anticipated health care service facilities being financed by the State should be placed in the HRS sections of the budget or should be otherwise clearly designated as health care service expenditures and not educational expenses.

34. The placement and designation in the state budget of health care facilities or other services, even though related to medical schools, should clearly distinguish between educational and service objectives.

35. Any further analysis and reconsideration of direct graduate medical education funding should give full recognition to the contributions to the State of all teaching hospitals regardless of affiliation with public or independent medical schools. Appropriations should be made on a per capita basis to allow comparability among institutions and as a base for further growth in or continuation of state's support.

Both consultants employed by the Commission expressed concern that the state's current funding policies for graduate medical education were not fully allowing the State to realize its eligibility for federal Medicaid and Medicare funding.

36. The current graduate medical education funding policies should be reviewed by the Education and Health and Rehabilitative Services Units of the Governor's Office of Planning and Budgeting, in conjunction with the Departments of Education and Health and Rehabilitative Services, to determine if the State might improve its eligibility for federal funds and if corrective measures should be taken in keeping with state priorities.

G. Foreign Medical Graduates in Florida

Over the last ten years an increasing number of graduates from foreign medical schools have presented themselves for licensure in Florida. According to the Department of Professional Regulation, approximately 1500 currently apply for licensure each year. According to testimony received by the State Board of Independent Colleges and Universities, foreign medical graduates represent 70 percent of all candidates. The schools from which the students graduate are not accredited. The sole recognized accrediting organization for schools granting M.D.'s is the Liaison Committee on Medical Education (LCME), a part of the American Medical Association (A.M.A.). It is the only accrediting authority recognized by the Council on Postsecondary Accreditation (C.O.P.A.). The LCME, however, does not accredit schools outside the U.S. and Canada.

Contemporary Policy Issues Regarding Foreign Medical Schools

While graduates of foreign medical schools have been coming to the U.S. for many years, the situation has changed recently. One, the perceived shortage of physicians in the past made the foreign-trained entrants a welcome addition to the U.S.-trained supply. The perceived shortage, however, has given way to a perceived oversupply by 1990. The AMA estimates that the expected entry into practice over the next 10 years of 40,000 to 50,000 graduates of foreign medical schools may account for more than one-half of the 70,000 physician surplus predicted by the GMENAC study.

Another change has been in the provenance of the foreign-trained students. An increasing number of those seeking entry are U.S. citizens rather than foreign nationals. Most of the U.S. citizens attend foreign medical schools with the expressed intent of returning to the U.S. to obtain residencies and to practice. Precise data on how many U.S. citizens are enrolled in foreign medical schools or how many intend to return to the U.S. are not available. However, the Educational Commission for Foreign Medical Graduates (ECFMG) estimated that in 1982, 20,000 American students were studying abroad. The number of U.S. foreign medical graduates taking the ECFMG exam, which is a prerequisite for entry into U.S. residency programs, has tripled since 1975, while the number of foreign nationals has declined. See Table 64.

Third, a new type of medical school has been created which enrolls predominantly U.S. citizens who seek preparation which will enable them to return and practice medicine in the U.S. The schools were not designed primarily to prepare practitioners for medical practice in the country in which the school is located. Many of these schools are in the Caribbean and have been termed "off-shore medical schools". The number of U.S. students from Caribbean medical schools who registered for the ECFMG has increased remarkably from 295 to 2043 and now represents 39.4 percent of all U.S. examinees trained abroad. (These data, from the New England Journal of Medicine, include numerous retakings by the same students and no doubt inflate the relative proportions considerably.) See Table 63.

TABLE 63

1982 PASSING RATES FOR AMERICAN STUDENTS FROM FOREIGN MEDICAL SCHOOLS HAVING AT LEAST 30 STUDENTS TAKING THE EDUCATIONAL COMMISSION FOR FOREIGN MEDICAL GRADUATES (ECFMG) EXAMINATION

Name of School	Number of American Students Taking	Number of American Students Passing	Percent Passing
Central Este, Dominican Rep.	1139	167	13.0
UAG, Guadalajara, Mexico	861	294	34.1
CETEC, Dominican Rep.	515	105	20.4
Noreste, Mexico	422	145	34.4
AUC, Montserrat	363	146	40.2
Juarez, Mexico	255	66	25.8
St. George's, Grenada	218	173	79.4
Ross, Dominica	118	46	40.0
Roma, Italy	107	45	42.0
UAS, Dominican Republic	90	12	13.3
Catolica M.M., Dominican Rep.	68	11	16.2
Nordestana, Dominican Rep.	63	10	15.9
Bologna, Italy	62	14	22.6
Zaragoza, Spain	49	7	14.3
Monterrey, Mexico	47	20	42.6
Santo Tomas, Philippines	45	19	42.2
Far Eastern, Philippines	44	19	43.2
Nuevo Leon, Mexico	37	14	37.8
Santiago, Spain	37	2	5.4
Bucharest, Rumania	35	14	40.0
Guadalajara, (State) Mexico	35	9	25.7
Cifas, Dominican Rep.	34	9	26.5
Unam, Mexico	34	7	20.4
Sackler, Israel	33	33	100.0
Valencia, Spain	33	1	3.0
Thesaloniki, Greece	32	3	9.4
Athens, Greece	32	8	25.0
Guerrero, Mexico	32	4	12.5
Xochicalco, Ensenada, Mexico	30	7	23.3

Source: Educational Commission for Foreign Medical Graduates, 1983.

TABLE 64

NUMBER OF FOREIGN MEDICAL GRADUATES TAKING ECFMG AND PERCENT PASSING ON MEDICAL COMPONENT

	Foreign National Foreign Medical Graduates		U.S. Foreign Medical Graduates	
Year	No.	% Passing	No.	% Passing
1975	35,000	37%	2157	34%
1982	22,000	18%	6047	31%

Source: Educational Commission for Foreign Medical Graduates, 1983.

1980 Report of the U.S. General Accounting Office

In 1980, the General Accounting Office (GAO) in a report to Congress on U.S. citizens studying medicine abroad stated that in the six schools they visited, which were chosen because of the large number of American enrolled, the education and training provided were not comparable to that offered in the U.S. schools. The following excerpts summarize the GOA's findings:

> GAO recognizes that there are many first-rate medical schools in foreign countries which produce excellent physicians; that many distinguished scholars from medical schools around the world are welcomed to this country as teachers and practitioners and make a valuable contribution; and that, even with limitations in a medical school's educational capabilities, some students will do well because of their own ability and willingness to study and learn.
>
> During its review, GAO visited six foreign medical schools that were selected primarily because large numbers of U.S. citizens either had studied or were studying at these schools. Because it was generally believed that the goal of most U.S. citizens attending foreign medical schools is to return to the United States to practice medicine, GAO believed it was necessary to compare the training they received in medical schools abroad to that provided in the United States. GAO's review was made in this context.
>
> The foreign medical schools GAO visited differed considerably, and the merits or problems of each school must be viewed separately. However, in GAO's opinion, none of them offered a medical education comparable to that available in the United States because of deficiencies in

admission requirements, facilities and equipment, faculty, curriculum, or clinical training. While it is difficult to judge the adequacy of the foreign medical schools in all of these areas, a serious shortcoming at each school was the lack of adequate clinical training facilities. None of the foreign schools had access to the same range of clinical facilities and numbers and mix of patients as a U.S. medical school.

State Regulation

The State of Florida is involved with students from foreign medical schools at three different junctures in their educational and career paths: medical clinical clerkships, residency programs, and awarding of state licensures.

Medical Clinical Clerkships. Medical clinical clerkships occur during the third and fourth year of medical school curricula. Some foreign medical schools that do not have sufficient clinical facilities either to expose students to a broad range of patients or to expose them to current technological facilities, arrange for their students, (or have their students arrange) to take the clinical clerkships in U.S. hospitals. Because of its proximity to the Caribbean, Florida has received a number of these students though no data exist on how many. Concern has arisen that because of the distance between the parent school and the hospital site, the students' program of study may not be adequately supervised. There has been concern that some of the hospitals are not equipped to be teaching sites, lacking a broad range of patients and equipment, and that the supervising physician lacks educational credentials.

The Florida State Board of Education took action in November, 1984 to provide minimum standards for the licensing of hospitals offering clerkship programs in Florida for students enrolled in unaccredited medical schools. State Board Rule 6E-2.042 addresses the quality and preparation of the supervising physicians at the hospital sites, both as physicians and as educators. Standards are provided to evaluate the adequacy of the hospital facilities and the characteristics of the patients to provide the needed clinical experiences for the students. The rule provides for a close relationship between the parent school and the clinical site to assure proper student supervision. A detailed description of the program and curriculum for each rotation is to be submitted by the school to the State Board of Independent Colleges and Universities (SBICU). The SBICU has also established a committee to monitor implementation of the new rule.

Residency Programs. After foreign medical students receive their M.D. degree from the medical school, many seek residency programs in hospitals in Florida and the other states. They must first pass a national exam, the ECFMG. Traditionally, there have been more residency positions than there have been U.S. medical school graduates. Foreign medical graduates have traditionally formed a significant portion of the total number of residents. In 1983, 18.4 percent of all residents were foreign medical graduates. In 1977, six years earlier, 24.5 percent were foreign medical graduates. The percentage of foreign medical graduates residents has shown a steady decline in recent years.

TABLE 65

FOREIGN MEDICAL GRADUATES AS A PERCENTAGE OF ALL RESIDENTS

1980	19.8%
1981	19.4%
1982	19.0%
1983	18.4%

Source: Directory of Residency Training Programs, 1984-85.

However, in Florida, the percentage of foreign medical graduates in residency programs is increasing. In 1981, 19.9 percent of the students in residency programs in Florida were foreign medical graduates. In 1983, the percentage had increased to 21.7. Another change nationally has been that the percentage of foreign medical graduates that are U.S. citizens is increasing. Between 1981 and 1983, the percentage of U.S. foreign medical graduates increased from 44 percent to 53 percent.

The passing rate for foreign medical graduates has remained somewhat steady. Table 65 lists the schools which have at least 30 students taking the ECFMG exam and the passing rates. In 1982, 18 percent of the foreign medical graduates passed the ECFMG. Concern has arisen over a recent scandal involving students from foreign medical schools. In May, 1984, the ECFMG announced that it was checking credentials of more than 2,200 graduates of foreign medical schools in the Dominican Republic who may have bought their diplomas. The people being investigated included more than 450 who passed the exam and may have enrolled in residency programs around the country.

In Florida, two students have been denied medical licenses and state officials are investigating 48 licensed physicians who graduated from Dominican Republic medical schools. Federal authorities are investigating the former medical director of Polk General Hospital in Bartow, Florida who was fired last December after U.S. postal inspectors subpoenaed the records of 38 people who had served clerkships there. The medical director could not show that all had attended the schools they claimed. Florida has since charged him with grand theft for allegedly stealing donations made to a charitable foundation by people serving clerkships.

Licensure of Foreign Medical Graduates. The Florida State Board of Medical Examiners is charged with certifying the competence of physicians to practice in Florida.

About one-half of all foreign medical graduates in practice are clustered in five states: New York (19,980), California (9,180), Illinois (7,922), New Jersey (6,286) and Florida (6,099). Foreign medical graduates represent 28.9 percent of all practicing physicians in Florida. The U.S. average is 21.98 percent. Florida ranks eighth. In September, 1983, a special committee of the Board of Medical Examiners met to consider additional measures to insure quality control in the light of recent reports that some medical students received medical school diplomas without attending some or all of their courses and without obtaining clinical experience. The committee subsequently denied licenses to eleven graduates of Caribbean medical schools until the committee can investigate curriculum and attendance records at medical schools.

New York and California, both states who have a high percentage of foreign medical graduates applying for licensure, have taken steps recently to improve their control over the competence of physicians applying for licensure. The New York Board of Regents, which has traditionally reviewed and approved in-state institutions and programs to a degree unparalleled in other states, has decided to accredit foreign medical schools on an institutional basis by making site visits to the institutions and evaluating their physical facilities, academic and clinical faculty and curriculum. The costs of such activities is to be borne by the institutions. The State of California has recently disapproved four foreign medical schools in the Caribbean and Mexico and has announced that they will no longer accept graduates of these schools as candidates for licensure.

Lack of Accreditation

The Postsecondary Education Planning Commission is a state-level educational policy commission and does not have responsibility in the area of regulating professional practice. The State Board of Medical Examiners is the designated board authorized to set standards of competency for physicians to practice in the State. However, as an educational agency, the Commission may respond to educational issues and offer recommendations concerning the role of the educational process in qualifying a candidate to be considered for licensure. The primary problem facing the State in regard to foreign medical schools is the fact that there is no educational agency whose responsibility it is to accredit foreign medical schools. In the absence of accreditation, little is known about a medical school's curriculum in terms both of subject content and time intervals of study. For schools accredited by the LCME, standards are established relating to the academic and professional preparation of faculty, the faculty-student ratio, the physical facility, library resources, the adequacy and integration of the clinical component vis-a-vis the basic sciences component and other measures relating to academic quality.

The State of New York has attempted to conduct state accreditation of foreign medical schools. It is prepared to conduct on-site reviews of the schools. However, some foreign medical schools have shown resistance to being accredited and have refused to cooperate with officials. To date, only one school has undergone the review process. The State of Florida should not attempt to establish a program of state accreditation of foreign medical schools along the lines of the New York model. Analysis by Commission staff in the general area of state-level accreditation has indicated that such activities are expensive, are duplicative of efforts by the other entities and may create new problems, particularly in respect to reciprocity with other states.

37. State-level accreditation of unaccredited medical schools may not be desirable or feasible.

However, the Commission is extremely concerned about the quality of preparation extent at schools who prepare large numbers of U.S. students who intend to return to the U.S. and practice and yet resist attempts on the part of U.S. federal and state officials to gather information or conduct site visits. The Commission believes that this unwillingness to cooperate should be received by the State with a presumption that the schools are not meeting standards similar to those set by the LCME.

Though these data are not complete, statistically it appears that a small number of unaccredited medical schools train a large percentage of the students who seek licensure in the U.S. For example, nine schools account for 71 percent of the U.S. citizens who took the 1983 national medical sciences knowledge program exam. See Table 66.

TABLE 66

DISTRIBUTION OF 2,080 U.S. CITIZENS WHO TOOK THE 1983 MEDICAL SCIENCES KNOWLEDGE PROGRAM AMONG FOREIGN MEDICAL SCHOOLS

Foreign Schools Providing 25 or More Examinees

School	Country	Number of Examinees
U Auto Guadalajara	Mexico	550
St. Georges U	Grenada	342
U Del Norests	Mexico	221
American U Caribbean	Montserrat	119
Ross U	Dominica	72
U Centro E Technicos	Dominican Republic	58
Faculte Libre de Med	France	53
St Lucia Health Sci U	St. Lucia	31
U de CD Juarez	Mexico	26
	Total	1,472 (70.8%)
	224 Other Foreign Schools	608 (29.2%)

Source: American Association of Medical Schools, 1984.

A number of professional groups at the national level is gathering information on these unaccredited medical schools. The American Medical Association has appointed a committee to develop some policy guidelines. The Federation of State Medical Boards is considering conducting site visits at some schools and establishing an information base for the use of all states. The Federation of State Medical Boards is presently studying the feasibility of conducting site visits to some of the foreign medical schools on behalf of the different states. If the Federation can gather information on the schools on behalf of the other states, this would avoid the expense of each state attempting to visit these schools. In Florida, the State Board of Education has adopted a rule requiring unaccredited medical schools which place students in medical clinical clerkships in Florida hospitals to meet certain minimal standards described earlier. The State Board of Independent Colleges and Universities has responsibility for monitoring compliance, and, in the course of their activities, will be acquiring relevant information about some unaccredited schools.

38. The State of Florida should continue to monitor and participate in all such state and national activities and seek to minimize the burden of collecting information on unaccredited medical schools by working in consort with other interested governmental and professional organizations.

39. The academic expertise of Florida's accredited medical schools should be fully utilized by the State in its deliberations concerning the medical curriculum of individuals and institutions.

Another area of concern for the Commission is in the advising of pre-medical students concerning unaccredited medical schools. It is important that undergraduate students who are contemplating applying for admission to medical schools be well informed by academic advisors as to the relative merits of unaccredited schools. Data are available on the passing rates of graduates of different school on national exams. Information about state licensing barriers that may need to be overcome by a graduate of an unaccredited school needs to be shared with pre-medical students.

40. The State University System should ensure that pre-medical students are well informed concerning the educational and professional possibilities and limitations in attending an unaccredited medical school.

The State should also recognize the value of receiving foreign-educated physicians and medical educators into the medical community. The exchange of practice procedures and academic research is essential to sustaining a high quality of medical care in the country. However, the State must first be satisfied that the foreign-educated physicians have received a comprehensive and sound medical education. Furthermore, the State must recognize the rights of U.S. students to study medicine abroad if they wish, without being subjected to unfounded discrimination.

41. No measures should be taken by the State that would serve to isolate the American medical community from foreign-trained practitioners nor that would discriminate without reason against foreign-educated physicians.

H. Health Care Cost Containment and Medical Education

Historically, citizens of the United States have expressed a commitment to the health of its people as one response to the issues of justice, equity and human rights. The health care system evolved making health care available for those who could pay, as well as for many who could not. Now, however, with expensive technological advances in medicine, increased costs of health care and a reduction in federal revenues for health care, questions are being raised about the system.

Rising Health Care Costs

A major concern of policymakers, health care professionals, members of the insurance industry and consumers is the spiraling costs of medical care. In 1982 Americans spent nearly 11 percent of the Gross National Product on health care, a 12 percent increase from the previous year. It is predicted that by 1990, total health care expenditures will account for approximately 12 percent of the GNP. Important facts indicative of the seriousness of rising health care costs are:

-- The cost of health care increased 11 percent in 1983 while the consumer price index rose only 3.9 percent.
-- Insurance costs increased more than any other health care item, rising 15.9 percent in 1982.
-- Hospital room rates rose 13.3 percent while physician fees went up 7.5 percent.
-- Prescription drugs rose by 12 percent and non-prescription drugs by 8.9 percent.
-- By 1988, hospitals in the United States will pay management firms $7.9 billion to run hospitals more economically.

In reviewing the accelerating costs of health care in the United States, it is important to consider several national trends and priorities which contribute to the problem.

Technology. The continuous updating of advanced medical technology affects the mix of health care services available. Most agree that these expenditures for technological advances have improved the quality of health care. The computed tomography (CT) scanner is an example of equipment which revolutionized patient care. As CT scanners are currently becoming commonplace, they are also becoming obsolete. A nuclear magnetic resonance imaging device is being considered for approval by the Food and Drug Administration. Other examples can be cited which reflect the evolutionary process and simultaneous expense which are inherent in advancing medical technology.

An Aging Population. The elderly proportion of the American population will continue to increase over the next 50 years. As the elderly have historically utilized a greater proportion of health care resources, an increase in health care expenditures will result. Additionally, the federal responsibility for health care coverage through Medicare will increase. As the population ages, therefore, demands for health care funds will rise.

Inflation. According to a 1983 issue of Health Care Financing Review, during the decade between 1971 and 1981 general inflation accounted for nearly 60 percent of the increase in personal health care costs. Approximately 8 percent of the increase in expenditures was a direct result of the aggregate population growth.

Resource Allocation. The American Medical Association published a 1983 statement to the U.S. Senate Committee on Labor and Human Resources which included a warning that reductions in resources devoted to health care could jeopardize continued availability of quality health care in the future. It recommended consideration of the following questions in searching for a means to constrain health care costs:

- What should be the priorities by which funds are allocated among basic research, applied research, the education of health care professionals (including physicians), the maintenance of health care facilities and delivery systems, and the actual delivery of health care services?
- High technology makes possible the treatment of certain afflictions but at a tremendous per capita cost. Which should have greater priority: heart transplants for the middle aged and the Medicare population, or expanded immunization programs for children?
- Are governmental and private insurance programs covering too much for too many and thereby destroying incentives that encourage individuals to take responsibility for personal health?
- Are individuals inappropriately insulated from the actual cost of the care they receive?
- What is the most beneficial mix of primary care physicians, physicians in specialized practice, and other health care delivery personnel?

The Physician's Role in Cost Containment

According to the 1984 report of the Florida Task Force on Competition and Consumer choices in Health Care, physicians appear to play a significant role in the costs of health care. By influencing when, how, and how much treatment occurs, physicians set the price and to a great extent, control the demand for their services. When one physician's rates increase and the financing system reimburses at that rate, others adjust their rates accordingly. Additionally, it is believed that physicians control nearly 70 percent of hospital costs. Studies have shown that most physicians are unaware of the economic effect of their medical decisions. Related research reveals that physician cost-containment training can result in the practice of more cost-efficient medicine, lowering medical care costs without reducing quality of care.

Cost Containment and Medical Education

Efforts to educate medical students regarding cost containment issues are expected to contribute to lowering the overall cost of health care. However, medical education is just one avenue by which to approach the problem of rising health care costs. A myriad of factors contribute to the rising costs and medical schools can only have a limited impact on the overall problem. Emphasis is needed on teaching cost containment at the residency level and encouraging integration of cost containment into the continuing medical education efforts of the country's medical societies.

In 1978, the American Medical Association House of Delegates adopted the recommendation that medical, dental, and osteopathic schools expose students to the economics of the care they deliver. Since that time, most medical schools have integrated cost containment as an element of medical education. In 1981, cost containment was included in the curriculum of 93 of the 124 U.S. medical schools.

The 1983 Florida Legislature addressed the issue of containment of health care costs. One component of enacted legislation included the requirement that Florida's medical schools incorporate cost containment into their curricula. Florida Statute, 84-83 Section 381.025 (4) states:

> It is the intent of the Legislature that Florida's medical schools develop in their curricula an emphasis on cost consciousness and cost containment so that physicians in training will be made aware of the financial consequences to the patient of the physician's clinical decisions.

The following are descriptions of the provisions for cost containment currently in the curricula of Florida's colleges of medicine.

The University of Florida. No required or elective courses specifically designated as health care cost containment courses are offered. However, the subject is addressed frequently throughout the medical students' four years of education.

In the second year Social and Ethical Issues in Medicine course, students participate in a two-hour seminar entitled "Claims to Health Care." Much of this seminar focuses on the cost of health care and cost containment. During the third year Community Health and Family Medicine clerkship, each student studies and reviews three patient case problems with an attending physician. During these three-hour sessions, considerable emphasis is placed on the cost containment aspect of health maintenance. This clerkship also provides the MEDCAPS program, a simulated patient problem-solving computer exercise in which the cost of the student's diagnostic and treatment choices are chronicled.

During the third and fourth year, students are exposed to informal discussions by both residents and attending physicians concerning the cost of the various treatment modalities and procedures used in the care of patients. The Curriculum Committee is involved in an extensive review of the current curriculum. One of the items mentioned specifically in the guidelines for this review is cost containment.

The University South Florida. Instruction in the area of health care cost containment occurs during both the didactic and clinical portions of the curriculum. As a part of the "Medicine and Society" course, the faculty presents a lecture which raises many issues regarding the need to make difficult decisions with cost as a consideration. The issue of the consumer's viewpoint regarding medicine, including the cost, is addressed.

During the current academic year, a five-hour course in cost containment is being added to the second year of the curriculum. The faculty of the College of Medicine believes the most effective way to teach cost containment is to relate the cost of care to the individual patient. Therefore, the major emphasis in the teaching of cost containment occurs during the clinical clerkship.

Southeastern College of Osteopathic Medicine (SECOM). No formal introduction of health cost containment has been made into the curriculum. SECOM's Dean is a member of the MEDEC Committee of the Hospital Cost Containment Board. Because the MEDEC Committee has not yet arrived at any conclusions as to the most appropriate way of introducing this material, SECOM has introduced no new methods or materials. However, in the Dean's weekly meeting with students, the subject of cost containment has frequently been discussed.

University of Miami. The subject of health cost containment is covered in the required freshman Health and Human Values course both in lecture and discussion format. The required Primary Care Junior Clerkship covers this topic from the clinical standpoint. With the advent of Medicare DRGs in 1983, the faculty and hospital administration instituted monthly or quarterly Economic Grand Rounds on each clinical service. The discussion centers on the costs associated with treatment of patients whose bills would exceed the amount Medicare would pay. Alternative therapies which are less costly are discussed, with emphasis on reducing costs without sacrificing quality of care. All students are on clinical rotations for their junior and senior years and thus receive a great deal of exposure to the subject of cost containment.

During the clinical clerkships, emphasis is placed on accurate, inexpensive diagnosis by taking thorough histories and giving meticulous physicals, rather than diagnosis by elaborate laboratory tests. Some specialties lend themselves well to this approach and others do not (gastroenterology, for example, usually requires X-rays and other tests for diagnosis).

In the intensive four-week cardiology elective, a computerized program is used for teaching in which each test and therapy ordered by the student is priced on the screen and costs are analyzed for each patient. Alternative, lower-cost methodologies are stressed to make future physicians aware of how to practice medicine in today's cost containment environment. Nearly all of the seniors traditionally choose this rotation, as cardiology is the most popular elective in the curriculum.

42. The 1985-86 program review by the Florida Board of Regents should include an analysis of the response of the medical schools to the 1984 legislation directing the schools to develop in their curricula an emphasis on cost consciousness and cost containment. The analysis

should review the number of hours of cost-containment training in didactic instruction, analyze the relative effectiveness of an unstructured (addressed as the need arises) or a structured (planned in advance as part of the curriculum) approach, and evaluate the degree to which cost-containment principles have been integrated into medical practice courses.

The Hospital Cost Containment Board established the Medical Education Council (MEDEC) to help teach Florida physicians-in-training about cost containment. MEDEC is comprised of representatives of the four Florida medical schools, as well as the two statewide medical associations. One of the objectives is to inform physicians on hospital finances and methods to contain costs. Avenues of approach include undergraduate and graduate programs of medical education and the various county and regional medical associations throughout Florida.

MEDEC has identified as its primary target the establishment of a program of computer-assisted educational tools highlighting the concept of cost-effective quality medical care. A nationwide survey was conducted to ascertain whether or not such software is available, or could be effectively modified. The answer was negative and MEDEC has assembled a group of Florida medical education computer experts to develop such a program for distribution within this state and possibly elsewhere.

MEDEC has recommended rules relating to the distribution of specific types of patient billing information to admitting physicians and will recommend that the topic of cost-effective quality medical care be made a part of medical license testing procedures.

43. The Medical Education Council should continue to develop strategies to improve the education of physicians-in-training and practicing physicians in the area of cost containment of health care. The Council should continue its work with the medical schools to improve the training of medical students and should also explore with the State Board of Medical Examiners the role of cost containment education in state licensure procedures and mandated continuing medical education. The efforts of the Medical Education Council should continue to address the physician's role in containment of health care costs.

I. Physician Assistant Education

Physician's assistants are health practitioners who care for patients under the supervision and direction of a licensed physician. Physician's assistants were introduced in the 1960s in an effort to reduce health care costs, compensate for the shortage of primary care physicians, and increase access to medical care services. Working under a physician's supervision, physician's assistants can obtain medical histories, perform physical examinations, conduct simple diagnostic tests, follow basic treatment procedures, and respond to emergency care situations. The supervising physician is responsible for assessing the physician's assistant's competence and delegating tasks accordingly. The extent of supervision may vary depending upon size of practice, patient characteristics and symptoms, and physician availability.

The majority of physician's assistants have been male and two-thirds held a baccalaureate degree prior to beginning physician's assistants training. This profile is changing as an increasing number of female and post-baccalaureate degree students prepare to enter the profession. The typical physician's assistant in civilian patient care earns about $25,000. Salaries increase $1,550 annually with each additional year of employment, but tend to stabilize after seven years.

Licensure

In Florida, physician's assistants employed in all but federal settings are certified by the State Board of Medical Examiners or the State Board of Osteopathic Medical Examiners and must apply for licensure with their supervisory physician. At the same time, the physician is required to seek approval of the physician assistant's anticipated duties from the Florida boards. The Boards vote on the physician's assistant's credentials and on the medical doctor's record before awarding licensure. Licensure may be obtained following graduation from a 24-month AMA-accredited program or through the National Commission on Certification of Physician's Assistants national certification.

Certification requirements and regulations governing services which physician's assistants may perform vary by state. In Florida, these are regulated by the State Board of Medical Examiners and the State Board of Osteopathic Medical Examiners. Physician's assistants working in the federal sector such as on military bases or in V.A. hospitals are not state certified.

Utilization of Physician's Assistants

Physician's assistants are primarily employed by M.D.s and D.O.s in the primary care specialties (general/family practice, obstetrical/gynecology, internal medicine and pediatrics). Recent studies suggest that the rapidly growing geriatric population and an increase in the number of pre-paid health plans which utilize physician's assistants could result in an increase in demand. Specifically, employment could expand in the areas of chronic disease, psychiatry, home health care, and geriatric medicine with larger number of physician's assistants working in nursing home and mental health hospitals. On the other hand, if the anticipated over-supply of physicians materializes, patient-load for physicians may decrease and demand for physician's assistants could decline.

A 1982 national study on the demand for physician's assistants reports that utilization depends on the willingness of physicians to employ them. Physicians may be less willing to hire assistants because of a lack of knowledge of the profession or because they feel it may cost less to hire a registered nurse. Other barriers to utilization of physician's assistants exist including restrictions on reimbursement. Although physician's assistants may be trained to assist in surgery and to make home visits, they are not reimbursed by third-party payers such as Medicare or Medicaid. Use of health care practitioners is further curtailed by legal constraints, malpractice uncertainties, and a definition of their role which may be too restrictive. For example, some state regulations limit a physician's assistants' role to a greater extent than would the supervising physician. In addition, lack of data on which to base reliable estimates makes it difficult to predict utilization of these professionals.

Advantages of Using Physician's Assistants

One major advantage to greater physician's assistants utilization is economic. Many studies have shown that using physician's assistants to perform basic medical tasks under a physician's supervision results in equal quality care at a lower cost.

A second advantage is that a majority of practitioners work in medically underserved areas, thus improving the distribution of health care services. Nationally, nearly two-thirds of physician's assistants are employed in complete or partial health manpower shortage areas helping compensate for a lack of medical doctors in these areas. Other advantages include reducing patient waiting time, freeing physicians for more challenging tasks, and providing wide-spread preventive health counseling.

Employment Opportunities

The majority of physician's assistants nationally are employed by primary care physicians in private practice. Others work in V.A. or local hospitals, in free-standing clinics, through pre-paid hospital plans, and on military bases. Over one-half specialize in family and general practice and nearly one-half are located in towns of less than 50,000. Nationally, about 60% of physician's assistants work in counties designated as complete or partial health manpower shortage areas. Recent medical literature reports a favorable job outlook and expects demand for physician's assistants services to increase when the reimbursement issue and other physician-extender utilization problems are resolved.

National statistics parallel those obtained through a 1984 preliminary study of University of Florida program graduates. Of 259 graduates, 78% remain in Florida. Nearly two-thirds of in-state graduates are now located in health manpower shortage areas and four-fifths (80%) are employed as physician's assistants in direct patient care. The University of Florida reports a 95% placement rate.

Education of Physician's Assistants

The typical educational program is two years in length and includes up to nine months of coursework and 15 months of clinical instruction. Students study introduction to medicine, preventive medicine, health counseling, anatomy, pharmacology, psychology and medical ethics. During the period of clinical instruction, they are introduced to areas of specialization and perform professional tasks.

Programs are accredited by the American Medical Association through the Committee on Allied Health Education and Accreditation (CAHEA). This 14-member review committee conducts periodic program evaluations to ensure academic quality. The awards granted for physician's assistants programs are primarily certificate, combined certificate/associate, and baccalaureate degrees. Three institutions offer Master's degrees. Generally, admission requirements are a minimum of two years of college or health-related training, ACT or SAT examination scores, and three character references. Thirty-seven programs or 70 percent are baccalaureate-degree programs. Physician's assistants programs are located in medical schools, four-year colleges and universities, community colleges, hospitals and on military bases.

Number of Programs

The first formal physician's assistants program was established in 1965 and the number of programs increased rapidly until the mid-seventies. By 1975, there were 50 primary care-oriented programs. The predominance of primary care orientation was maintained in the 1980s. There are now 53 AMA-accredited programs.

States which have the largest number of physician's assistants programs are New York (7), Pennsylvania (6), Texas (4) and California (4). Florida has one program at the University of Florida. Twenty-three states have none.

Enrollment Levels

Since the mid-seventies, enrollments have remained steady in Florida as they have nationally. In 1983, there were 2,871 students enrolled in physician's assistants programs nationwide. Each year, between 1400 and 1500 physician's assistants have been admitted and have graduated. The University of Florida program admits 30 students annually. Nationally, there are 1.2 slots in physician's assistants programs per 100,000 population. This compares to 0.6 in Florida.

Physician's Assistants Student Profile

The typical physician's assistant student today is a 28 year old female with a bachelor's degree in biological science and experience in direct patient care. Since 1974, there has been a marked increase in the number of women and post-baccalaureate students enrolled in physician's assistants programs nationwide. In 1982, 54 percent of students were female and 67 percent held a bachelor's degree. Nationally, the proportion of minority students has remained at six percent.

Students enrolled in the University of Florida program match the national profile. They range in age from 19-47 with an average age of 28. They have from one to twenty years of experience in direct patient care. One-half of Florida's physician's assistants students are female and nearly one-half hold a bachelor's degree. The University of Florida program has surpassed national statistics with respect to increased minority enrollment. Florida's class of 1986 is 13 percent black, 13 percent Hispanic and 4 percent Asian students.

Physician's Assistants Education in Florida

Florida's first physician's assistants training program was established in 1972 at Santa Fe Community College and was affiliated with the University of Florida College of Medicine. In 1976, the program was moved to the University of Florida. In July of 1982, the Board of Regents moved the program from the College of Medicine to the College of Health Related Professions.

The University of Florida physician's assistants program admits 30 new students each year. Florida's admission requirements include 60 semester hours of general education plus nine hours of pre-professional study to supplement at least one year's experience in direct patient care. The program received a three-year Health and Human Services Grant to strengthen curriculum and meet Florida's health care needs, particularly in the areas of geriatric and family medicine.

Costs of Physician's Assistant's Education

Physician's assistants program costs vary by program type and location. The Association of Physician's Assistants Programs reports that the national average cost per student per year is $5,000.

The Supply of and Demand for Physician's Assistants

There are an estimated 16,500 physician's assistants in the U.S. today or seven health practitioners per 100,000 population. Nationally, the job outlook for these professionals is favorable. In Florida there are currently 212 licensed physician assistants. This represents about one physician assistant for every 48,033 Florida residents or about 2.1 physician assistants per 100,000 population.

Since its inception in 1972, the Florida program has produced a total of 259 graduates. Of the 259 program completers, 95 percent were placed. Nearly 80 percent of these practitioners remain in the State. In recent years, the Florida program has produced 30 physician's assistants a year. Available positions in Florida continue to outweigh the number of in-state job applicants. Yet, between new graduates and in-migration the annual openings are being adequately met. Nearly 80 percent of program graduates work in Florida as physician's assistants in direct patient care. Sixty percent are employed in counties designated as complete or partial health manpower shortage areas throughout the state. The University of Florida graduates represent 59 percent of total physician's assistants who now hold a Florida license.

The role of the physician's assistants in providing medical education has yet to be fully realized. Though research has repeatedly shown that physician's assistants are prepared to deliver under the supervision of a physician a number of medical procedures traditionally delivered by physicians and in a considerably more cost-effective manner, physician assistants have been under-utilized by physicians and growth in their use has leveled off since the mid-seventies.

More than one-half (55%) of practicing Florida PAs are hired by a nongovernmental employee and 64% work in a private practice setting. Nearly one-half (49.7%) of practicing physician's assistants are employed by M.D.s in the primary care specialties (general/family practice, obstetrical/gynecology, internal medicine and pediatrics). Practioners spend most of their time conducting patient diagnosis and performing patient treatment and report they see 339 new patients per year. This compares to 183 patients who see the medical doctor. The overwhelming majority (96%) of physician's assistants anticipate remaining in their profession. At this time, only three percent of licensed Florida physician's assistants are inactive. See Table 66.

The State of Florida has only one program at present and between the graduates of this group and in-state migration, the employment needs of Florida are being met. Though the Commission finds that physician's assistants offer a cost-effective alternative for the delivery of some health care and offer an alternative delivery system for certain underserved populations, the Commission cannot recommend the establishment of new programs in the absence of employment opportunities. However, the State should take measures to demonstrate to and educate physicians in the professional advantages offered by physician's assistants.

44. The State of Florida should not establish any new physician's assistant programs until employment demand increases. However, if demand does increase, new programs should be established in proximity to other medical schools in Florida to help expose more medical students to the utilization of physician's assistants.

45. The existing program at the University of Florida should explore the program's capacity to provide externships at other locations around the State to help expose more practicing physicians to the utilization of physician's assistants.

The Commission also discussed barriers to the use of physician's assistants that arise from licensure restrictions, such as the number of physician's assistants that a physician can supervise, and fiscal constraints on the public health units. In addition, license restrictions may be discouraging physician's assistants from locating or providing service in underserved rural areas. The 1980 GMENAC report brought attention to a number of these issues. Recommendations of the Nonphysician Health Care Providers Technical Panel include the following:

> State laws and regulations should be altered as necessary such that a PA or NP working under appropriate physician supervision can independently complete a patient encounter for conditions which are deemed delegable.

> The states should move to provide physician's assistants with limited powers of prescription, taking what precautions are necessary to safeguard the quality of care including explicit protocols, formularies and mechanisms for physician monitoring and supervision.
>
> At a minimum, physician's assistants should be given power to dispense drugs in those settings where not to do so would have an adverse effect on the patient's condition. Precautions should be taken to safeguard quality of care.
>
> States with underserved rural areas, in particular, should evaluate whether the laws and regulations pertaining to physician's assistant practice discourage location in these areas.

While these issues were of serious concern to the Commission, they lay outside the purview of the Postsecondary Education Planning Commission. However, the Commission did wish to alert state policymakers to these issues.

46. The State Board of Medical Examiners and the State Board of Osteopathic Medical Examiners should review the laws and regulations governing practice of physician's assistants to assure that the most effective use of their training is made in meeting State needs.

The Commission will be addressing allied health in the next phase of the comprehensive health professions plan and may wish to address further some issues regarding physician's assistants.

J. Academic Advisement of Pre-Medical Students

The advisement of pre-medical students is of considerable importance for students who wish to pursue the medical profession and for society's goals of achieving equitable access for all students. Despite recent reductions in the applicant pool, admission to medical school still remains highly competitive. For every 500 pre-medical students, only 200 actually apply to school and only 100 are accepted.

Nationally, undergraduate pre-medical advisement has traditionally been randomly assigned to science faculty with little training. However, during the last three decades, the applicant pool in our nation's medical schools has diversified as students from many socioeconomic levels, ethnic groups, and academic backgrounds have recognized the opportunities available in professional careers and have sought more equitable access to the admissions process of medical schools. With the increase in the applicant pool and the intensification of competition for medical school openings, the need for an effective student advisement process has been recognized and addressed with additional programs, staff, and funds.

The National Association of Advisors of Health Professions is a professional organization established to offer assistance to educators who advise and counsel students in their preparation for a health professions school and career. A quarterly journal is published and a national conference is held annually in which trends are identified and analyzed in the areas of admissions, financial aid, testing, recruitment, and academic preparation.

State University System

Programs to advise pre-medical students have been developed at all nine of the state universities. Six of the programs are described below.

Florida A & M University. At Florida A & M University, pre-medical and pre-professional advising for Medical College Admission Test (M.C.A.T.) preparation and academic requirements is performed by faculty in the Division of Mathematics and Natural Sciences. In addition, a summer program of academic preparation has been designed for pre-professional students.

The University of West Florida. At UWF a biology faculty member is designated as advisor to pre-medical students for academic scheduling and curriculum decisions. A pre-professional committee, consisting of five faculty, provides advisement to pre-medical students on the requirements and expectations of medical schools. The committee conducts interviews with each pre-medical student and also encourages pre-professional work and volunteer experiences for the students. Following the interview, each student is evaluated and a letter of recommendation is drafted by the committee to facilitate the medical school application process.

Florida International University. Extended academic advising for pre-medical students at FIU occurs at the department level. In addition, there is a pre-medical Evaluation and Advisory Committee which consists of five faculty members who represent departments in the natural sciences. A file is developed on each student which includes all academic transcripts, M.C.A.T. scores, and faculty evaluation forms. A formal interview is conducted with each student after which a level of recommendation is determined by the committee, and a composite letter of recommendation is made available to medical schools. On occasion, students are referred to the summer program of the University of Miami.

The University of Central Florida. UCF has established an Office of Pre-Health Professions Advisement. The office is not an academic office, but it provides individual counseling to pre-medical students on test requirements, medical school application process, and financial aid opportunities. Academic advising is conducted in biology and other academic departments. The office director offers a class which provides structural learning opportunities including visits from medical students and physicians. A Pre-Professional Screening Committee interviews all students and provides an application service which develops a composite evaluation of each student. The evaluation includes a transcript analysis of academic performances and a letter of recommendation which is made available to all medical schools.

The University of South Florida. At USF the Pre-Medical Advisor's Office is an undergraduate office with five advisors who counsel students from all professional schools. The office has developed a resource library which includes admissions requirements, test score data, and curriculum planning. The staff provide workshops for high schools and other community groups. In addition, a committee of staff advisors conducts an academic evaluation and motivation evaluation for each student. The committee examines a factual representation of the record of each student and analyzes all exceptions to his or her best possible record. Each student is ranked by G.P.A., test scores and exposure to the field. Volunteer and work experiences are strongly encouraged by the committee.

The University of Florida. At the UF Office of Pre-Professional Education any "undecided" student can receive academic counseling and information on pre-medical curricula and admissions requirements. Teams of advisors offer programs to high schools, community colleges, and community groups. When a major is selected, the student is referred to the major department for academic advisement.

Students receive guidance on curriculum, academic regulations, and test preparation. In addition, tutorial services are available and a volunteer service program provides on-the-job experiences in the health professions.

The University of Miami

At the University of Miami, there is a Pre-Professional Advising Office in addition to departmental advisement by faculty. The office staff counsels pre-medical students, publishes a "Guide to Pre-Medical Students," and acts as a liaison to all medical schools. The office regularly advises students on medical school requirements and expectations and provides a summer program for pre-medical students to provide additional preparation for their professional education.

Community Colleges in Florida

The role of pre-medical advising at Florida's community colleges is important for achieving student access because of Florida's heavy dependence on community colleges for providing the first two years of a baccalaureate education. Approximately sixty percent of Florida's baccalaureate students begin their postsecondary education in one of Florida's twenty-eight community colleges. A corresponding significant percentage of medical students in Florida matriculate from this pool of students. It is clear, therefore, that pre-medical advisement should be a part of academic counseling programs in Florida's community colleges.

Community college students who take the M.C.A.T. at the beginning of their junior year must compete with college and university students who have received significant examination preparation and advisement. It is important that interested community college students be similarly counseled in the nature of the M.C.A.T. test, when it should be taken, and exam preparation.

The pre-medical education program at Gulf Coast Community College offers a variety of services to its students and serves as a model for other Florida community colleges. A full-time advisor provides advising and counseling on successful interviewing, M.C.A.T. preparation, academic scheduling, and study skills. Pre-professional student orientation sessions are conducted, and a printed handbook is distributed to the students which provides further information and guidance. Medical students and young physicians, particularly women and minorities, are brought to campus to counsel second year pre-medical students and serve as role models. In addition, informational workshops are conducted for high schools and community groups on the services of the program.

According to the State Board of Community Colleges staff, other community colleges in Florida do not have organized counseling services specifically for pre-medical students.

Undergraduate Curriculum for Pre-medical Students

The Association of American Medical Colleges has recently released a major study on the General Professional Education of the Physician (GPEP). The study reports that as a result of the ever-expanding base of required knowledge in the medical sciences, the traditional information-intensive approach to medical education may fail to help students acquire the skills, values, and attitudes that are the foundation of a helping profession. Students may be inadvertently led to think that their education depends on memorizing as much information as possible. Consequently, some may lack a clear idea of the skills, values and attitudes that are important.

The GPEP study notes that medical faculties encourage students to shape their college programs by requiring specific courses and laboratories and by recommending additional courses that, by implication, will give medical school applicants an advantage. As a result, students often embark upon their baccalaureate studies with one goal in mind: admission to the professional school of their choice. The traditional objectives of college education are to sharpen critical and analytical skills and to investigate the varieties of human experience through balanced studies in the natural and social studies and in the humanities. However, these are being displaced by students' preoccupation with gaining admission to medical school. By the time their college studies are completed, these students may have forfeited the intellectual challenges and rewards of a broad range of studies.

The GPEP study reports that the M.C.A.T. has a powerful influence on what students perceive to be principal determinants of selection for medical school. As presently constructed, the examination reinforces the tendency of students to focus their studies on biology, chemistry, and physics. The belief by medical school applicants that medical faculties prefer a narrow science-based preparation is supported by the excessive emphasis many admissions committees give to applicants' scores on M.C.A.T. science subtests. Concerned educators argue that performance on the M.C.A.T. does not necessarily correlate with achievement in the clinical sciences, that the test does not differentiate between good and excellent students, and that the test cannot determine whether these future practitioners have the capacity for empathy with their patients.

Early Admissions Programs

Brown University has recently inaugurated an innovative approach to medical education. Brown plans to merge its medical and pre-medical programs and to admit almost all of its medical students directly from high school. Medical school officials are concerned that pre-medical students face increasingly specific and rigorous admission requirements, and once accepted into medical school find themselves even more constricted academically in an environment which requires intensive memorization in lecture courses. The new eight-year course of study will allow students greater freedom in choosing undergraduate courses and will provide encouragement to pursue academic interests outside the conventionally narrow pre-medical framework.

Other schools such as Washington University in St. Louis, Case Western Reserve University, and the University of Wisconsin select and guarantee outstanding high school seniors admission to medical school so that they are free to acquire a broad, undergraduate education. With the merger of medical school and college admissions, students admitted to the program as freshmen will be guaranteed acceptance to the medical school portion as long as they maintain an acceptable academic record. These innovative schools will continue to offer pre-medical education for undergraduates who want to attend medical school elsewhere.

The Southeastern College of Osteopathic Medicine and Florida International University have developed a joint program to offer a seven-year combined baccalaureate/doctor of osteopathy program. The student would enter SECOM after three years of undergraduate study and receive the baccalaureate degree one year into the SECOM medical program. The student would have a position reserved in the SECOM first-year class at the time of admission to FIU. Eventual admission to SECOM would still be contingent on maintaining high grades, receiving an acceptable M.C.A.T. score and final interview.

The G.P.E.P. report concludes that in order for college students to achieve a broad baccalaureate education, required courses should be held to a minimum, additional courses should not be suggested, and admissions committees should give preference to students whose transcripts show that they have pursued successfully a wide range of study. The G.P.E.P. report further urges that the M.C.A.T. be used only to identify students who qualify for consideration for admission.

Undergraduate advising of pre-medical students appears to be well organized and actively pursued at the universities in Florida. Though community colleges have a lesser role in the advising of pre-medical students, the activity of Gulf Coast Community College demonstrates positive actions that may be taken at the lower division level to help prepare students for the rigorous and highly competitive admissions process.

47. The State Board of Community Colleges should review the status of pre-medical advising at the state's community colleges and provide technical support to improve the quality where indicated.

The GPEP report expressed concern over possible limitation of the medical student's undergraduate curriculum by overly burdensome medical school admission requirements or the perception of such.

48. The four medical schools should review their admissions policies and practices in the light of the AAMC report on the General Professional Education of the Physician (GPEP). Any change that might result should be aggressively disseminated to Florida's undergraduate institutions.

VII. CONCLUSION

The State of Florida is well positioned in regards to access to and quality of medical education for its citizens. The three medical schools that have served the State over the last few decades have distinguished themselves in training, service and research. The State avoided the overexpansion in medical education experienced by many states and the Commission found no need to recommend enrollment reductions. The geographic distribution of the medical schools follows the population distribution somewhat closely and no major section of the State is without reasonable access. The Commission analyzed the role of the independent sector in providing medical education and while affirming its contribution to the State found need for more regular review of the State's policies and the need to tie state support to changing state policy objectives.

Over the next two decades, significant changes are expected in the medical profession and health care in general. All of these changes may impact the supply of and demand for medical doctors and the role of medical schools in meeting societal needs. The State of Florida will need to reassess the medical education needs in the State and evaluate the ability of the present medical education structure to meet the needs.

APPENDIX A

Options for Financing

Graduate Medical Education in Florida

Prepared by Ruth S. Hanft

Introduction

This report was requested by Dr. Carolyn Herrington, Program Analyst, Post Secondary Planning Commission, and is based on a meeting with her in Washington, D.C., on November 26, 1984, and the following background documents:

Report on Graduate Medical Education Financing in Florida, John M. Kuder, Ph.D., November 19, 1984

Health Professions Education Costs in Teaching Hospital, by Kerry Kilpatrick, Ph.D., June 1984

Performance Audit of the Department of Education Community Hospital Education Program, March 11, 1983

Annual Report for 1984 Community Hospital Education Council.

The report that follows is designed to augment the other documents. It also assumes the accuracy of the findings of these studies as they relate to Florida's programs.

The report summarizes: current national data on graduate medical education and its financing; discusses problems with current national financing methods; variations in financing related to missions and ownership of institutions; describes changes that are occurring in federal and private programs and their potential impact on graduate medical education financing; raises specific issues that Florida should address before making program changes; and cautiously suggests some options for consideration for future changes in Florida's support programs.

Two caveats are important at the outset of the discussion:

1. No two states are exactly alike in the size, scope and support of medical education and graduate medical education, although there are similarities in approaches among the states. These differences are functions of history and tradition, number and ownership of medical schools and teaching hospitals, population size and growth, perceived medical care needs, state higher education policies, per capita income of the population, policies to support patient care for indigents, revenue sources, and the nature of the medical care industry in the state.

2. Major changes may occur within the next two years in the Federal government's willingness and methods used to support graduate medical education. Senator Durenberger has already introduced legislation that will reduce the current federal support through the Medicare program and change the method of support from automatic reinbursement to a program of grants to hospitals and states. He will reintroduce this legislation in the new Congress. Major changes in a state's policy of support may be premature until the nature of the Federal changes are known.

National Data on Graduate Medical Education and Its Financing

There were approximately 72,400 residents in allopathic residencies in the United States on September 1, 1983. In addition, there were 1313 osteopathic internships and 1040 filled residencies. Florida, with a rapidly growing population, currently has less than 2 percent of the graduate medical education positions nationwide. Florida is an importing state for physicians, which means that the bulk of support for the education of Florida physicians at the undergraduate and graduate levels comes from resources outside of Florida. It also means that deliberate state policy to affect numbers, specialty and geographic distribution of physicians based on graduate medical education programs and their support will have marginal effects only.

Under the present methods of financing graduate medical education, residency training is supported primarily by patient care revenues, through payments of hospital charges and cost reimbursements. Aggregate national data from a limited number of teaching hospitals but including the major teaching hospitals, provided by Association of American Medical Colleges show the following distribution of financing of house staff stipends and fringe benefits.*

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* Florida specific data were not available during the short time frame allowed for this paper.

Percentage Distribution of Funding Sources Used to Pay Hospital Costs of Housestaff Stipends and Fringe Benefits, 1982-1983 Excluding VA Hospitals

Funding Source	Source of Revenue, in Percent	
	Residents	Clinical Fellows
Patient Revenues and General Operating Appropriations	83.09%	62.56%
State Appropriations Earmarked for Housestaff Expenses	6.26	1.03
Municipal Appropriations Earmarked for Housestaff Expenses	1.58	0.95
Veterans Administration Appropriations	1.56	2.78
Physician Fee Revenue	0.47	2.87
Medical School/ University Funds	1.92	6.92
NIH	0.34	9.09
Other Federal Agencies	0.21	1.00
Endowment Income	0.01	0.99
Foundation Grants, Voluntary Agencies	0.30	5.98
Other	4.26	5.82
TOTAL	100.00%	100.00%
Number of Hospitals	215	121

State direct appropriations nationwide earmarked for graduate medical education support approximately 6 percent of residents' stipends. General appropriations for medical school and hospital support may also be used for house staff support. These data cannot be disaggregated. In addition to this distribution of support, the Veterans Administration finances the training of approximately 12 percent of all residents and the military an additional small amount. There is also limited and potentially declining Federal grant support for residency training in general internal medicine, pediatrics and family practice; and in 1983, 45 million dollars was allocated for these grants. Clinical fellowships, which are post residency subspecialty training, receive much less support from patient care, but receive research support.

Non-federal teaching hospitals include residency program expenses in setting charges and determining reimbursable costs. The amount actually reimbursed to the hospital often depends on the mix of patient payment and the amount of uncompensated care provided.

Medicare has set the pace for most third parties and is a particularly important source of support for residency training and in Florida because of the large number of elderly who live in the state. Medicare supports graduate medical education as follows:

- Under Part A, hospital insurance, payment of stipends and fringe benefits of house staff;
- Part A, payment of faculty for supervision of house staff;
- Also under Part A, indirect costs based on resident per bed ratios;
- Payment of faculty under Part B of fees for the care of patients.

When Congress enacted the revised Medicare payment system for hospitals, training costs were not included as part of the prospective payment, but are paid in addition to the per case payment for services. All direct costs, such as resident stipends, are recorded in the graduate medical education cost center and overhead expenses are allocated. In addition, there is an "indirect medical education adjustment" based on the resident per bed ratios. These latter costs are included in part because the per case reimbursement does not adjust for severity of illness, and teaching hospitals tend to care for more seriously ill patients. Teaching physicians, in addition, can bill fees for personal and identifiable services to patients.

Residency program costs are distributed unevenly among the 1500 teaching hospitals. One hundred non-Federal hospitals train 46 percent of all residents in the nation. Many of these hospitals are university owned or related, or are large county hospitals or large nonprofit hospitals with heavy indigent case loads.

Complicating the development of rational policies to finance graduate medical education are the nature of teaching hospitals and the graduate medical education process. Teaching hospitals provide the usual hospital services of primary and secondary care. However, many teaching hospitals, particularly those with large residency programs, tend to be the providers of tertiary care services treating the most seriously ill patients; provide regionalized special care services; clinical training of a wide variety of health professionals; and as a group, provide disproportionate amounts of uncompensated care for the poor and medically needy. They also serve as the centers for clinical research and investigational procedures. Residents trained in these hospitals also perform multiple and overlapping functions that include: learning; teaching other house staff, medical students and other health professionals; provision of patient care services; and clinical research.

Graduate medical education financing also includes support of teaching physicians, and there are very complicated streams of support reflecting and responding to the multiple functions of the faculty. Faculty receives salary support through biomedical research funds, state appropriations to medical schools for teaching of medical students, payments from hospitals for supervision of house staff, payments directly from state appropriations for graduate medical education programs that can flow to the medical school and/or hospital, partial salaries from the Veterans Administration for joint appointments to the Veterans Administration and medical school facilities, and from fees generated for providing patient care services. This last source of support is the most rapidly growing of all sources.

Problems with Current Financing

There are three basic problems with current financing of graduate medical education:

Bias in the financing methods toward specialty and subspecialty residencies and tertiary care.

Lack of control over geographic and specialty distribution.

Equity of financing across population groups and geography.

The basic method of support of graduate medical education through third party payments provides relatively easy funding for specialties that are hospital based, tertiary care centered, and places barriers to funding ambulatory care based specialties in primary care specialties and psychiatry. The reasons for these distortions are the structure of health insurance benefits and the methods and levels of third party reimbursements. Traditionally, hospital care is the best insured health care service. The majority of the population has hospital care coverage from either public or private programs, and most union/management contracts have little cost sharing imposed on in hospital services. Furthermore, fees generated for surgery and other procedure oriented services tend to be higher on a time basis than cognitive, health maintenance and counselling services. Outpatient services are less well covered by insurance in scope and the proportion of the bill paid with preventive services usually not covered by health insurance, and cost sharing by the patient normally required. As a consequence, while insurance will reimburse virtually all of house staff and faculty costs in the inpatient setting, it does not in the outpatient setting. Furthermore, certain population groups and types of services are less well covered. Children are less likely to be insured than adults, and maternity care is often skimpy.

The support residencies, primarily through third party payments which flow automatically, exerts no control on geographic and specialty distribution, and in fact, because of the inpatient bias and the location of teaching programs, runs counter to articulated specialty and geographical goals. If, for example, the goal is 50 percent of the physicians in primary care specialties, and if residency support is not available through the usual reimbursement methods, the goal will not be achieved without other direct intervention. The federal government and the states have recognized and addressed the problem through the special grants for primary care training. The geographic problem is more difficult. Many studies indicated that physicians prefer to locate in regions where they are trained, although migration of physicians is increasing. Fifth-five percent of residency training takes place in eight states: New York, California, Pennsylvania, Texas, Illinois, Ohio, Massachusetts and Michigan. In addition, most large teaching hospitals (Shands is an exception) are located in urban areas because of the volume of clinical experience needed. State medical schools have tried to redress this situation through several mechanisms. Illinois, Indiana and Kansas have developed community based clinical training and residency programs. Florida has the CHEP program.

Variations on Financing Relating to Missions and Ownership of Hospitals

While national data describe the general distribution of revenues that finance graduate medical education, the distribution will vary widely by hospital depending on ownership and mission, organization of programs, relationship with medical schools, size and specialty distribution of residencies, faculty arrangements, payment mix of patients. There are numerous variations on the revenue flows among the same classes of hospitals.

University owned or principal state university related hospitals receive, in addition to reimbursement from third party payors (public or private insurance), biomedical research grants, appropriations to cover general deficits, and education and research costs, appropriations for care of the indigent, special appropriations for statewide, regional or special programs.

County hospitals receive county appropriations for care of the indigent in addition to reimbursement from the public programs of Medicare and Medicaid. They can also compete for biomedical research grants and other special grants, but often these grants flow directly to the medical school and its faculty. These hospitals in general are underfinanced and have continuing fiscal problems.

Nonprofit voluntary hospitals rarely receive direct government appropriations. They do receive special grants from public authorities for training, service, or research. They have the greatest flexibility in selecting patients, supporting, decreasing or increasing programs of their choice and in selecting their mix of patients.

Hospitals will obviously attempt to match their graduate medical education programs with their missions. For example, Shands, established primarily as an education and research hospital, will seek residents and programs that meet these general missions and would, for example, tend to have more clinical fellows than community hospitals, fewer numbers of residents related to local or county patient care needs. Tampa General and Jackson Memorial, with major missions of providing care to their localities and the indigent, will gear their programs to their patient care needs, i.e., trauma, maternity, neonatal care, etc.

State Roles in Financing Graduate Medical Education

While most states play a role in graduate medical education, these roles and the financial committments have been relatively modest compared to total graduate medical education costs and will obviously vary depending on state goals, finances, etc. In general, states have supported graduate medical education through three basic mechanisms:

Appropriations to state medical schools and their owned or principal hospitals for general support, education and research missions.

Appropriations for state university owned or principal hospitals to support uncompensated care.

Special direct grants to all types of hospitals and training sites to support residency positions in primary care or other specialties considered in short supply.

There is often no clear distinction between general purpose appropriations and financing of uncompensated care. The state often regards the state university hospital as essential to education and recognizes that for teaching and research purposes, these hospitals will care for non-insured patients and/or provide investigational services that are not eligible for reimbursement and/or because the education research component results in higher patient care costs that are not fully reimbursed by third parties.

The last type of state support, grants for primary care residencies, is more recent and stems from perceived shortages of primary care physicians and the fact that while third-party payments generously support hospital based and procedure oriented specialties, these mechanisms do not fully support specialties that require significant ambulatory care and outpatient training. Many states now provide grants or stipend support for residencies in family medicine, general internal medicine and general pediatrics. This support is generally provided to all hospitals and other training sites in the state with approved residency programs in the specific fields, not just the principal medical school hospitals, although in some states the medical school has educational responsibility for the programs.

States, however, frequently have inconsistent policies between their patient care and education programs, shifting the burden from one mission to another. When a state, for example, has stringent Medicaid eligibility requirements, or pays for care for Medicaid recipients at levels well below cost, yet provides "deficit" financing for its teaching hospitals, it shifts the revenue burden from one pocket to another, frequently with a loss of potential federal matching revenue. When a state provides direct support for residencies which could be financed mainly from third-party payments, it is in effect paying more than it needs to and actually reducing available resources that could be used for other desirable goals. As Dr. Kuder's paper indicates on page 3, "by directly subsidizing certain hospital residency programs, the amount of federal dollars flowing into the teaching hospitals is not maximized because state funds offset funds that might otherwise come from Medicaid and Medicare programs."

Changes that Will Affect Current Graduate Medical Education Programs

Recent rapid changes in health insurance benefits, hospital reimbursement, and in the organization and delivery of health services are affecting and will continue to affect support of graduate medical education. These include:

- Emergence of Preferred Provider Organizations that seek low cost providers and negotiate for discounts. Teaching hospitals, which are higher cost institutions, will have difficulty competing and can lose patient volume and revenues affecting their ability to support graduate medical education programs.
- Growth of HMOs that have a similar effect as PPOs in terms of contracts with teaching hospitals.

- Increased cost sharing, a trend in health insurance benefits that will increase bad debts for the lower income insured.

Of immanent concern is the potential change in Federal Medicare policy for support of graduate medical education.

Senator Durenberger has introduced a bill in the Senate, and will reintroduce the bill in the next session of Congress, to change the current Medicare direct payments for graduate medical education to a program of grants to the states. $900 million would be allocated for this purpose, in contrast to the $1 billion now spent by Medicare. The grants would be apportioned to the states on the basis of the individual state's proportion of approved interns and residencies. The $900 million would be increased each year by the consumer price index.

The grants to the states would be divided into two parts with 95 percent in 1986, 90 percent in 1987, 85 percent in 1988, and 80 percent thereafter allocated to hospitals with existing clinical training programs. There is a limit on the amount any one hospital may receive based on prior Part A Medicare payments. Five percent in 1986, ten percent in 1987, fifteen percent in 1988, and twenty percent thereafter would have to be matched by the state, and these funds would be used on a more discretionary basis. The funds in the second pool of money could be used by the states to assist approved graduate medical education and other clinical training programs relevant to Medicare and which display innovation in medical education. If the states do not match the funds, the funds go into a pool for use by the other states. States would be required to establish an advisory board to provide recommendations.

It is possible that the President's 1986 budget proposal will seek to change current Medicare reimbursement for clinical training, but no details will be available until January 1985.

Issues in Financing in Florida

As in most other states with multiple medical schools and teaching hospitals, each of the hospitals and medical schools in Florida evolved differently with different emphasis on the missions of education (both undergraduate and graduate), research and patient care; different geographic locations and patient care settings, and different mixes of financing. This is not a unique situation. Because of perceived changes in needs within the state, the state developed different support mechanisms to meet these needs. Also, this is not unique to Florida. In addition, as is true of the teaching hospital universe as a whole, the major teaching hospitals in Florida provide large amounts of uncompensated care. While some states have tried to separate the support to these teaching hospitals as between education and patient care, because the two functions occur simultaneously as joint activities, few states have been successful, and only arbitrary separations can really be made. In fact, the Federal government recognized this problem when it recently increased the indirect education support in part as a proxy for the fact that DRG reimbursement does not recognize the complexity of patient care in teaching versus non-teaching hospitals.

From Dr. Kuders' report and the Report on Health Professions Education Costs in Teaching Hospitals, it is clear that the Shands hospital is a traditional principal university hospital whose existence is based primarily on its education mission; while all of the other major teaching hospitals base their education programs primarily on patient care needs.

If one compares Florida to other multi-medical school states, similarities are obvious in the diversity of the mix of missions in different medical schools and their teaching hospitals, and the different funding mechanisms used by the states to support these programs, ranging from general appropriations to the schools and teaching hospitals, special purpose grants for support of special services that do not pay their way, grant programs for support of primary care residencies in major teaching hospitals and community hospitals. Many county hospitals or hospitals supported by county revenues serve as teaching hospitals to assure that quality care is provided and physicians' services are available to the poor. Examples of county hospitals in other states that serve as principal teaching hospitals for universities are Charity in New Orleans, Grady in Atlanta, Los Angeles County.

Before altering any current support mechanisms, Florida needs to review the following:

Goals

For example: Graduate medical education. What does it expect to accomplish and what are the measures of accomplishments? Is the product graduate medical education in general, or graduate medical education in certain specialties? Or control over the quantity in each specialty?

Graduate medical education institutions, both those directly related to the public medical schools and those related to private medical schools. Does the state wish to provide general support only to principal teaching hospitals of the state university system? Does it want to provide financial viability to all major teaching hospitals?

State support for patient care and/or clinical research. Does it want to support tertiary care, clinical research, special underfinanced patient care services, indigent care? Are these considered byproducts of graduate medical education or primary goals?

What is the interdependence of graduate medical education and the accomplishment of undergraduate medical education; patient care and research goals?

Effects of Current Support Mechanisms

Before any decisions are made on funding, sophisticated analysis is needed of the following:

- Current streams of support from all sources for graduate medical education.
- Whether current state support of graduate medical education in terms of stipends for house staff and salary support for teaching physicians results in loss of Medicare/Medicaid education funding through offsets and hence becomes an extra cost to the state.
- Whether the new hospital revenue tax will relieve the uncompensated care problems and allow education support that currently may underwrite uncompensated care to be used for education purposes.
- The actual need for and use of the support by the three hospitals which receive appropriation support, Shands, University Hospitals - Jacksonville and Tampa General. What actually is not being reimbursed by third parties or other state programs like maternal and child health, Medicaid.
- The need for the support in the CHEP program for each individual specialty in terms of manpower shortage/surplus in Florida and whether state funds are substituting for third party payments, particularly Medicare/Medicaid in the hospital oriented specialties, and whether the CHEP program has positively influenced supply.
- The role of the Veterans Administration hospitals in supporting residency programs in Florida and the potential for expanding VA programs to support the integrated residencies.
- The effects of proposed changes in Federal reimbursement policies on support of graduate medical education in Florida and the effect of the rapid development of HMOs and PPOs on the support of the teaching hospital programs in Florida.
- The contribution that the graduate medical education programs make to the support of the undergraduate health professions programs in the state, e.g., hospital supported faculty supervision in the graduate programs that simultaneously teach undergraduate students as well as the contribution of residents to this education.

Options for Support of Graduate Medical Education

The following possible options are offered, but should not be seriously considered until the state has set goals and it is known whether there will be imminent change in federal policy.

Option 1 - Maintain the Status Quo

Pros: - Provides time needed to articulate goals and gather accurate data on current financing.

- Provides time to assess the effect of external changes in federal policy and private sector financing on Florida's goals and programs.

Cons: - Locks in the present programs which may not be consistent with goals, may be inequitable among institutions.

- Florida would continue to substitute state revenue for other potential sources of revenue.

Option 2 - Review the CHEP program to determine which specialty training programs with an estimated undersupply of the specialty are inadequately supported by third party reimbursement and fund the unreimbursed costs of these programs, wherever the programs are located.

Pros: - Assures that state funds are not being used as a substitute for other sources of funding.

- Acts as an incentive to increase the supply of shortage specialties and an incentive to spread training programs more broadly across the state.

Cons: - This option would require determination of undersupply - a difficult and controversial exercise and an analysis of residency support by specialty.

- May result in the expansion of state support with no guarantee that trainees will remain in the state.

- May result in a loss of quality as graduate medical education is dispersed.

Option 3

Provide state support for all graduate medical education, but only to the extent that these programs are not supported by third party payments and/or county revenues that support the education programs.

Determine the amount of unreimbursed graduate medical education costs and develop formulas by specialty to pay a "state share".

Pros: - The state becomes the last payer and its funds are conserved for other education purposes.

- Would treat all graduate medical education programs by specific specialty alike in the state no matter what the relation of the training institutions to the state university system.

- Would provide greater support to primary care programs than to subspecialties and could consolidate all graduate medical education into one program.

- Could be used as a tool to set specialty training ceilings and numbers by specialty.

Cons: - It is technically extremely difficult to separate the unfunded patient care from the unfunded teaching costs and any separation will be arbitrary.

- There will be an incentive for the counties and private third parties to withdraw their current support.

- Would probably increase state costs if hospitals and medical schools are currently cross-subsidizing from one specialty to another or for those residencies not now receiving state support.

- Since Florida is a major importer of medical personnel, state control of the numbers of residency positions by specialty would have little influence on distribution of physicians in Florida.

Option 4 - This option is an extension and corollary of Option 3.

Attempt to separate the purposes of the multiple streams of support, including third and fourth year clinical undergraduate MD training, training of other health professions; graduate medical education as well as special patient care programs and uncompensated care. Fund the education programs from the education budget and the health care services components from the "health" budget.

Pros: - Conserves education funds for education purposes.

- Clearly identifies for the public the extent and cost of uncompensated care and underfunded special patient care services and may lead to public policy changes to increase support for these programs and to more equitable distribution of the burden among providers. (The hospital revenue tax may do this for uncompensated care.)

Cons: - Would require extremely difficult and expensive time and cost studies of missions and programs, faculty, residents, distribution of overhead, etc.

- Could boomerang and actually reduce special patient care services and/or uncompensated care if the public is unwilling to finance these as discrete programs.

The discussion and options indicate that there is no one right answer to the state's role in supporting graduate medical education. Graduate medical education, undergraduate health professions ecucation, patient care, clinical research, are interdependent and changes in one sector will affect all the others. Florida, like most other multi-school states, has implemented multiple support mechanisms to achieve changing goals and address problems at different points in time. It is most important before any major changes are made in current support mechanisms and levels of support that:

- Clear goals be established by mission.
- That there is complete understanding of what missions and programs current funding is supporting, whether state funding is a substitute for other funding or augmentation of other funding and consistent with goals.
- That evaluation of external changes in federal and private funding be taken into account.

APPENDIX B

REPORT ON
GRADUATE MEDICAL EDUCATION FINANCING
IN FLORIDA

John M. Kuder, Ph.D.

November 19, 1984

Introduction

This report summarizes my review of the current state funding programs for graduate medical education in Florida. These findings are primarily based upon information obtained during a series of meetings with representatives from Florida's medical schools and three major teaching hospitals. In addition, I had available to me several documents describing the current programs in Florida. During my three day trip to Florida, Carolyn Herrington of the Post-secondary Education Planning Commission (PEPC) and I interviewed representatives of the University of South Florida Medical School, the University of Florida Medical School, Tampa General Hospital, Shands Teaching Hospital and Clinics, and the University Hospital of Jacksonville. We also met with a representative of Jackson Memorial Medical Center and the University of Miami Medical School. In addition, supplemental interviews were conducted with Dr. P. Barrett, Chief Analyst for House Appropriations and Dr. K. Penrod, Executive Director of Medical Education Programs, State Department of Education.

The purpose of this study was to review current funding for graduate medical education in Florida, to ascertain the ideas and positions of the three allopathic medical schools and three teaching hospitals with major affiliations with the two public medical schools, and to suggest areas in which further policy development is needed in the direct state funding of graduate medical education. The manner in which the evaluation was conducted limits the comprehensiveness of this report. Therefore, my comments are quite general and designed to outline the qualitative issues rather than provide specifics about particular programs. Statistics regarding program sizes and dollar funding amounts are available elsewhere, and therefore not reported here except in very general terms.

I was impressed by the level of cooperation and patience all parties gave me in developing this report. I would particularly like to thank Carolyn Herrington of the PEPC who provided me with the required background materials, spent a great deal of time answering my questions about the Florida system, and conducted the interviews with me. Her valuable assistance was much appreciated.

This report begins with a general discussion of the issues faced in financing graduate medical education in Florida. The next section summarizes the direct funding programs as they were described to me, and the final section provides a discussion of my findings and some alternative policy directions that can be considered.

Overview of Issues

During the study interviews it readily became apparent that each of the hospitals and medical schools view themselves as a special situation with unique missions and problems. This situation is reflected, and perhaps enhanced, by the way in which each program is independently treated by the state. Each of the representatives we talked with expressed their institution's needs somewhat differently and all had ready examples of cases where the other institutions received support which they did not. Because of this, it was impossible to determine all the sources of state support or to quantify them exactly.

This situation, where each graduate program views itself as a unique case, is further complicated by the current funding programs for Medicaid and indigent care in Florida. The teaching hospitals each provide a large portion of services under these programs for low income Floridians. All interviewees considered these programs to be underfunded. Therefore, in all the cases we reviewed, state funds for graduate medical education are essentially used to subsidize care for lower income Floridians. This care is largely provided by physicians in residency training programs. The current programs for the provision of care to the medically indigent results in inequities in access and financing. This inequity exists because under the county based program some counties provide monies for this care while others do not. Care provided to the medically indigent that reside in counties with inadequate funding is provided at a loss by teaching hospitals. These hospitals currently finance this care via cross-subsidization, equivalent in effect to a tax on paying patients, and by funds received for graduate medical education. The opinion was frequently expressed that much less, if any, state subsidies for graduate medical education would be required if payment for this type of care was appropriately funded. Hope was expressed that the new state fund for indigent care, based on a tax on hospital's net revenues would ease this situation in the future but all interviewees feared the size of this fund would be inadequate to address the need.

The State of Florida currently funds a variety of different programs which either directly or indirectly support graduate medical education throughout the state. Because of the nature of graduate medical education, it is impossible to identify exactly those state monies which are directly used only for meeting graduate medical education objectives. It can be reasonably argued that all state monies that flow to either medical schools whose faculty supervises and administers the graduate programs and monies which flow via a variety of state programs to teaching hospitals are all contributing to the support of residency programs. These sources of support include Medicaid payments, monies for operating budgets (including personnel salaries), capital and equipment support (including loans and other provisions), support for special programs, direct appropriations for educational expenses and resident salaries, and medical student tuition support. Each of the medical schools and teaching hospitals in the state receive, in various proportions, funds from a number of these sources. Most of these funds were not specifically appropriated for graduate medical education per se but serve to support a number of different educational and medical care objectives. These other objectives include providing access to quality medical education for Florida residents, improving the quality and accessibility of medical care provided (particularly specialized tertiary care services), providing care for the poor and medically indigent, and conducting research to improve medical care. It is impossible to sort out only that money being used to support graduate medical education . It is also impossible to imagine providing services to meet all of these objectives without viable programs in graduate medical education.

Even though an evaluation of all the various programs which are related to graduate medical education is beyond the scope of the current project, financially and otherwise, these programs are highly interdependent. These interdependencies combined with a seemingly uncoordinated state funding approach leads to problems and inconsistencies in the existing situation. For example, at the current time, it appears by directly subsidizing certain hospital residency programs, the amount of federal dollars flowing into the teaching hospitals is not maximized because state funds offset funds that might otherwise come from the Medicaid and Medicare programs. It should also be pointed out that the financing problems that result from these interdependencies will grow in the future as hospitals find it increasingly difficult to cross-subsidize programs which do not generate enough revenue to pay for themselves. This will occur as third-party payors (primarily Blue Cross/Blue Shield, commercial insurance companies, Medicaid and Medicare) adopt stricter payment mechanisms like the new DRG based system.

Review of Direct Funding Programs

The University of South Florida Medical School supervises a variety of different graduate medical education residency programs. The physician residents currently care for inpatients primarily at the V.A. Medical Center in Tampa, and at Tampa General Hospital. In addition to state support for the medical school, this program receives state funds to help support the salaries of 119 residents at Tampa General Hospital. Thirty-seven percent of each resident's stipend is currently being paid from this state allocation. The remainder of resident salaries are paid for by the hospital. This funding currently is in the neighborhood of $800,000 per year. An additional $35,000 goes to pay for the meals of residents. Paul Powers, the Associate Executive Director of Finance at Tampa General, said this salary support is necessary because of the large volume of unfunded care for indigents that residents provide. Therefore, this program is providing a clinical base for the University of South Florida graduate programs which might otherwise be unavailable in the area and is also providing physicians to care for patients (particularly those with low income) at Tampa General.

At this site, it appears the size and mix of the residency programs is largely determined by the need for physicians to care for the poor. As an example, the obstetrics/gynecology (ob/gyn) residency program provides physician support for the large volume of indigent births at Tampa General. Even though the state may have enough ob/gyn specialists in aggregate to support the Florida population's needs for this specialty, the number of these physicians willing to treat indigent patients for the expected payment level in the Tampa area appears insufficient at this time.

The University of Florida Medical School also supervises a broad mix of residency programs. Their residents train at a variety of different sites including Shands Teaching Hospital and University Hospial in Jacksonville. The program in Jacksonville is administered in cooperation with the Jacksonville Health Education Program (JHEP).

The situation at Shands is unique for two reasons. First is was established with the major mission of providing a site for medical education. Secondly, it is not located in a major metropolitan area. As a result, Shands Hospital focuses on being a tertiary care resource for Florida and in particular, the central Florida region. Again, much of the care they provide is to Florida residents that are medically indigent. In addition to providing secondary level care, they also provide specialized services which by their very nature are low volume and high cost. Even though Shands is currently a private hospital, they have and do receive indirect state support for buildings and equipment and benefit from their location attached to the University of Florida Medical School facilities.

Direct state money for graduate medical education at Shands is received in the form of special appropriations for indigent care, state mandated services, underfunded state programs, and non-reimbursable teaching costs. Of these funds, only the latter is specifically earmarked to support graduate medical education . The current funding for non-reimbursable teaching costs is $700,000-$800,000 per year. However, in discussions with John Ives and Paul Metz, executives at Shands Hospital, it became apparent that this money is directly related to uncompensated care for the medically needy. Uncompensated care at Shands annually amounts to over $26 million, almost $9 million of which is provided for by these special state appropriations, including the non-reimbursable teaching cost budget item. The remainder is made up via cross-subsidization from other hospital funds.

The size and mix of residency programs at Shands is determined by balancing a mix of objectives. Foremost among those are the educational objectives of providing a good range of high quality programs, but patient service need is also considered as an element in these decisions. Residents at Shands are paid their salary from the hospital.

University Hospital in Jacksonville is also a residency site for the University of Florida Medical School, and is the major provider for medical care to the medically indigent in the Jacksonville area. Nearly all of the physicians providing care at University Hospital are salaried employees of the hospital. These physicians supervise the residency program. Resident salaries are paid for by the JHEP which is the administrative body which oversees a variety of health education programs in the area. However, University Hospital allocates funds to JHEP annually in an amount equivalent to the salary of residents receiving training there. We could identify only one source of direct state support for graduate medical education at this hospital. This source is the state earmarked funds to pay the salaries of twenty staff physicians. This support is given to assist in covering the expenses of supervising the residents in training. This amounts to over $900,000 in salary support per year.

Because of its mission as a provider of care for the poor, the size and mix of the University Hospitals residency programs, like those at Tampa General, are likely to be in large part determined by patient care needs rather than by educational objectives alone.

Though not a formal part of our evaluation, we did talk with a representative of Jackson Memorial Medical Center and the University of Miami, both private institutions. Jackson Memorial is a major site for the large residency programs of the University of Miami Medical School, and is a major provider of services to the indigent population in the Miami area. While they receive no direct state monies for graduate medical education, like Tampa General and University Hospitals, they receive funding from county governments for indigent care. Even though the University of Miami is a private school, they do receive a state subsidy in the form of tuition support for Florida resident medical students, but this subsidy does not extend to students in their graduate programs.

In addition to the programs discussed above, the State of Florida currently funds a Community Health Education Program (CHEP). This program's major objective is to increase the supply of primary care specialists in the state via subsidization of hospitals with accredited residency programs in family practice, emergency medicine, internal medicine, ob/gyn, and pediatrics. In addition, they provide support for internship programs primarily for Doctors of Osteopathic Medicine. They are currently reducing funding for ob/gyn programs in anticipation of providing funds for graduate programs in psychiatry. Any Florida hospital with an accredited program in any of these areas is eligible for support. The major part of CHEP funds are allocated on the basis of the number of residents in the program. Currently, this program subsidizes some 43 residency programs in twenty different hospitals. Tampa General, University Hospital, and Shands all receive money from this source. While a few observers we talked with questioned the quality of some of these programs, most agreed that they have contributed significantly to the supply of primary care specialists in the state. The continuing need for this program is based on the need to maintain the current supply of these specialists rather than on expansion of their numbers.

Discussion of Findings and Policy Options

The supply and distribution of physicians in the State of Florida seems to be largely determined by the imigration of physicians from outside the state, rather than being determined by the size of the residency training programs at the state's teaching hospitals. Even if all the current state supported programs in graduate medical education were eliminated, the supply of most specialties would likely remain only minimally affected since the supply deficit would quickly be made up by immigration. This might not be the case in primary care specialties, however, where CHEP seems to be having a positive influence on the supply of these specialties. However, the current state suport for residencies at Tampa General, Shands, and University Hospitals is providing funds to meet a number of other worthy objectives, most notably that of enhancing the quality of medical care within the state and providing access to care for the lower income population which might otherwise not be present. Regardless, the state may wish to revise the current financing of graduate medical education such that the public may have greater control over the number and specialty mix of training programs it supports.

It would be pointed out that there is no evidence to support that such alterations in the current program would have any significant impact on either the aggregate supply of physicians practicing in Florida nor the cost of medical care in general. The supply can only be significantly impacted by either changing licensure requirements or by policies which influence the profitability of practicing medicine in Florida.

Much of the demand for the services of physicians in-training is determined by meeting objectives other than those related to the aggregate supply of physicians. Those objectives are primarily related to the need for physician services to treat the indigent population. In addition, residency training slots are needed to provide a quality educational experience for the graduate teaching programs. The existance of these programs likely improves the ability of these hospitals to provide specialized services that might otherwise be less available, and positively impacts on the quality of care provided throughout Florida by providing an accessible pool of highly trained specialists, as well as providing access to such training for Florida residents.

Given that the State of Florida would like to continue to support the meeting of these objectives, several options for revising the current structure of the program are available. One option would be to alter the current funding for the Medicaid and indigent care programs. Such a program could incorporate differential payment rates for teaching and non-teaching hospitals. Increased funding in these areas would likely allow hospitals to pay residents without additional state subsidization. This option should be seriously considered as the current program appears to result in inequities in financing and access to care.

Another option would be to create an expanded CHEP through which all direct state support for graduate medical education could be administered. Support could then be earmarked by a special medical advisory committee for residency programs which best meet the state's medical care needs, including the specialty mix of physician supply. This option has several drawbacks however. The primary drawback of this approach would be the difficulty in assuring equity among the schools and hospitals. Since each program currently garners benefits from a variety of historically developed provisions for indirect support, it would be difficult, if not impossible, to put all programs on an equal footing without evaluating and possibly changing indigent care financing, financing for special programs, capital development financing, and financing for undergraduate medical education programs. In addition, each of the programs serve a somewhat unique role in the state, and though these roles may be changing, they will likely remain quite distinct from one another. These role differences would have to be taken into account even by a centralized administrative body.

A third option would be to identify the current role of each program in meeting a list of public objectives, including the provision of specialized services, serving as a resource for research and current medical knowledge, providing care for the indigent, providing specialty education, etc. These objectvies could be in part specialty specific. These objectives matched with programs meeting them could then be grouped into broad categories. For each major category a separate funding mechanism could then be developed. For example, one program could support specialized services, another could support resident stipends, and another could provide funds for uncompensated care. Although this approach has logical appeal, it denies both the interdependencies existing between these objectives and the fact that while the division of financing in this way can be useful for accounting purposes, it may have little meaning in practice. There is little that can be done to either actually separate the need for one category of funds versus another, or to guarantee that funds from one source only support programs in the indicated category.

At the present time, there appears to be a need for the State of Florida to establish a comprehensive policy on graduate medical education and to consider a more coordinated approach to its financing. This is separate however, from any goals regarding a policy to influence the number, specialty mix, and location of physician specialists in the state. This latter objective, if deemed desirable, cannot be accomplished via policies that only impact upon graduate medical education, but requires a much broader policy focus.

Policies to influence the supply and distribution of medical specialists must focus on the major factors which influence the demand and supply of physician services in the state. The demand for specialists could be significantly altered if state-wide payment programs were in place for providing care for the indigent. Under such a program payment levels to specialists could be altered in accordance with projected need. On the supply side, policy options can either be of a direct regulatory nature or can use a more maket oriented approach. The regulatory approach would likely entail changes in the current licensure regulations. The market oriented approach might contain policies which influence the cost of establishing a medical practice in Florida. For specialties in normative over supply, the cost of establishing a Florida practice could be increased via a variety of mechanisms which might include requiring increased training and/or experience levels, or requiring payment of a special tax on new practices. Policies to increase the supply of shortage specialties would likely be easier to implement than those which attempt to slow the growth in the supply of surplus specialties. This is because, other than CHEP, the state currently does not have programs which can be curtailed with the expectation that the result will be a reduction in the supply of speialists.

Overall, priority should be given to changing the current program for funding care for the poor and the medically indigent. A state-wide program with sufficient funding could directly pay hospitals for care of this nature that is provided. Under such a program, hospitals and physicians could then best decide on the most efficient way to provide this care. Their choices include providing the care under a traditional medical practice framework, providing care with hospital based salaried physicians, by hiring residents from graduate medical education programs, or by establishing some sort of alternative delivery system such as a Health Maintenance Organization. Hospitals would then only establish residency programs to care for the indigent when this was deemed the most efficient way of providing care. If the state then wanted specific graduate medical education programs (in addition to those already provided by hospitals) to meet specific objectives, a subsidy program for special projects could be established. The merits of each program could then be evaluated largely independent of the need to provide care to the poor and medically indigent.

State of Florida
Department of Education
Tallahassee, Florida
Ralph D. Turlington, Commissioner
Affirmative action/equal
opportunity employer

FLORIDA: A STATE OF EDUCATIONAL DISTINCTION. "On a statewide average, educational achievement in the State of Florida will equal that of the upper quartile of states within five years, as indicated by commonly accepted criteria of attainment."

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